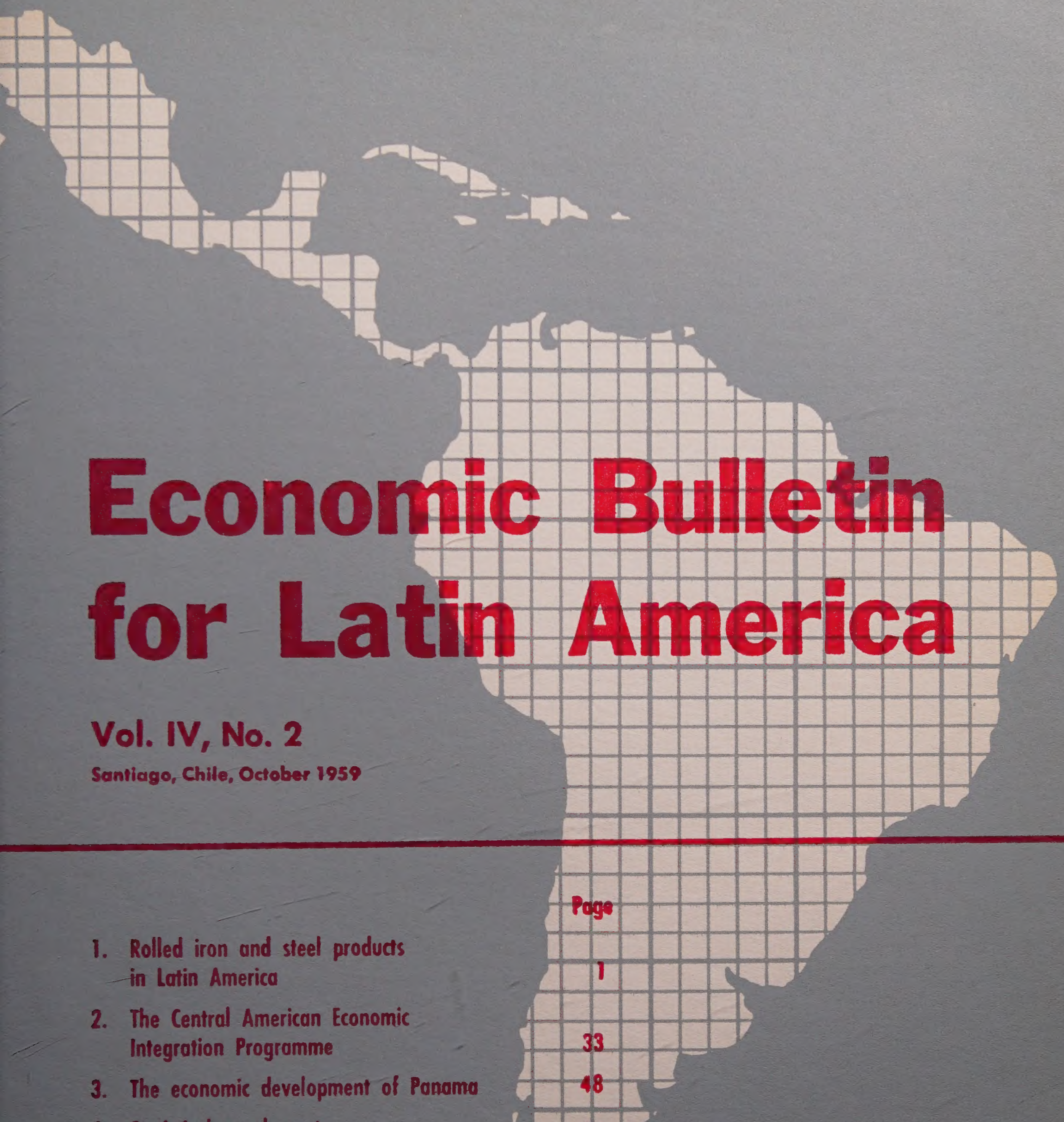

Economic Bulletin for Latin America

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Santiago, Chile, October 1959

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UNITED NATIONS

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The *Economic Bulletin for Latin America,* published by the Secretariat of the Economic Commission for Latin America, appears twice yearly, in February and September. The essential purpose of this periodical is to provide a résumé of the economic situation of the region designed to supplement and bring up to date the information published in the Commission's annual economic surveys. Apart from this summary, which is to appear in every issue, special articles on different subjects related to the economy of Latin America are also included.

The ECLA Secretariat assumes entire responsibility for the *Bulletin.* Its content —intended for the information both of public officials and of the general reader— was not submitted to the Commission's member Governments before publication.

EXPLANATION OF SYMBOLS

Three dots (...) indicate that data are not available or are not separately reported.

A dash (—) indicates that the amount is nil or negligible.

A minus sign (— 300) indicates a deficit or a decrease.

A space is used to separate thousands and millions (3 123 425).

A stroke (/) indicates a crop year or a fiscal year, e.g., 1954/55.

An asterisk (*) is used to indicate partially or totally estimated figures.

"Tons" and "dollars" are metric tons and United States dollars, respectively, unless otherwise stated.

Minor discrepancies in totals and percentages are due to rounding.

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ONOMIC BULLETIN FOR LATIN AMERICA

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. IV, No. 2, October 1959

UNITED NATIONS

ROLLED IRON AND STEEL PRODUCTS IN LATIN AMERICA: PROSPECTIVE PRODUCTION AND DEMAND

rom 28 September to 3 October 1959 a Meeting of Representatives of the Latin American Iron and Steel Industry convened on roposal of the Chilean Steel Institute (*Instituto Chileno del Acero*), was held at Santiago, Chile. In the course of this important ence, a decision of fundamental significance was unanimously adopted, namely, that a Latin American Steel Institute (*Instituto oamericano del Acero*) should be established. General Edmundo de Macedo Soares e Silva (Brazil) was elected Chairman. The hairmen are Mr. Carlos Prieto (Mexico) and Mr. César del Río (Peru). All the Latin American countries possessing iron and industries are represented on the Board of Directors of the Institute. Mr. Fernando Aguirre T. (Chile) was elected General ary. The Institute will hold its first General Assembly at Sao Paulo, Brazil, in 1960. It was provisionally agreed that the head- ers of the secretariat should be in Santago, Chile, for one year, pending a final decision by the General Assembly.

he main objectives of the Institute are as follows: (a) to carry out studies and analyses of Latin American markets and disseminate nation on the expansion plans of the iron and steel industry in Latin America; (b) to promote the standardization of products; o further the exchange of information, experience and techniques likely to improve productivity and the quality of output; (d) pare and maintain a system of statistics for production, trade, final uses, prices, etc., of steel products in the Latin American ; (e) to promote, so far as lies within the power of the Institute and of the member enterprises, the exchange of information, t and direct relations on the broadest and most complete bases possible, with a view to developing and strengthening real and ef- e ties between the entrepreneurs of the Latin American iron and steel industry; and (f) to collaborate in projects designed to ate the productive effort of this industry and to place the training of personnel and other similar activities on a permanent g.

CLA, which has long been devoting special attention to the development problems of the iron and steel industry in Latin America *, nvited to attend the meeting as an observer and presented as its contribution the study which is reproduced in the following , the figures having been brought up to date since the discussions. The projections prepared for this study extend up to 1965, by date they indicate that there will probably be a deficit, despite Latin America's efforts to develop its iron and steel industry. The n's own production would only suffice to satisfy 75 per cent of demand for rolled products, and although this represents a great forward in relation to 1957 (when no more than 53 per cent was satisfied) it cannot compare favourably with existing conditions hly industrialized regions and countries. The region obviously needs more projects for the expansion of its production capacity if to be in a better position to satisfy its own demand by 1965, and this becomes even more evident when it is borne in mind that subsequent period —since more industrial manpower will have to be absorbed than is allowed for in the programmes prepared, and n exchange difficulties will limit imports of machinery and equipment— the growth of this demand is expected to be much more ed.

his data in the following study, and the projections formulated here and in other ECLA documents, irrefutably suggest that the scale hich the iron and steel industry will have to expand in the next few years will be such as to entail a high degree of co-ordina- of effort on the part of industrialists if smooth progress is to be achieved. Hence the significance of the establishment of the American Steel Institute, whose function it will be to promote exchanges of information among the various steel enterprises of ontinent.

INTRODUCTION

n their present form, the aims of this study are ed. The purpose is, in a nutshell, to review rapidly extent to which Latin American requirements of d steel products are being satisfied by current sup- , and to compile the results of various estimates —mainly based on the trends registered in preceding periods— as to the magnitude of these requirements in 1965, for subsequent comparison with the current production programmes of different countries of Latin America.

Pursuant to resolutions adopted at the fourth session of the nission and at subsequent conferences, an Expert Work- Group on the Iron and Steel Industry in Latin America was ened at Bogotá, Colombia, in 1952, and was followed by a American Meeting of Experts on the Steel Making and sforming Industries at São Paulo, Brazil, in 1956, and a Meeting on Railway Equipment at Cordoba, Argentina, in At the eighth session of the Commission, held at Panama City in May 1959, a new resolution (162 (VIII)) was adopted, which requested the "ECLA secretariat to convene panels of experts on basic industries, especially the iron and steel and petrochemical industries, in order to study as a whole the programmes being carried out in Latin America and to suggest possibilities for the specialization of production with a view to reaching optimum productivity in each of the branches already established or to be established in the region".

Section I (General conclusions) summarizes the salient results of the detailed analysis made in section II which, in its turn, is a compendium of all the basic data available in the principal Latin American countries.

Mention should be made of the difficulties which studies of this kind have to contend with, owing to the lack of homogeneity in Latin American statistics and the absence of any clear-cut terminology. In order to overcome these difficulties in part, a number of definitions were adopted for the technical terms that appear most frequently in this study,[1] and the presentation of the statistical tables for various countries has been standardized to conform as closely as possible to the following classification:

Steel ingot
Rolled products:
Flats:
Strip
Plate
Sheet
Tinplate
Other than flats:
(Bars and shapes, rails, wire and wire rod, etc.)

The choice of any future period as a frame of reference for projecting requirements and production of iron and steel goods in the region is inevitably somewhat arbitrary. The fact that 1965 has been selected for the purposes of this study is justified only by the assumption that the intervening period is long enough for pr sent expansion plans to be carried out. Longer perioc would introduce an element of greater uncertainty, a is only natural with respect to plans of a longer-ter nature. In any case, above and beyond its arbitrarines the choice has been a particularly useful one for th study since —as may be noted from the general co clusions— it coincides with a period in which projection of demand show an appreciable deficit in Latin America iron and steel supply when compared with the industry present plans for expansion. This has the virtue of draw ing attention in advance to an aspect which may prov to be essential for the future development of the region economy.

The experience of countries at a more advanced stag of economic development may be useful with respect t both the prospective over-all behaviour of demand fo steel products and the composition of such deman —above all, its division into "flats" and "other tha flats". For this reason, the way in which consumptio of the different rolled steel products has developed i the United States and Western Europe during the las 40 years has been briefly examined in annex II.

This does not in any way mean to suggest that th same process might be repeated more or less automati cally in Latin America; it is merely intended to provid some additional data which may enable certain aspect of the probable evolution of Latin American demand i the next decade to be evaluated more clearly.

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[1] See annex I.

I. General conclusions

Although the development of the Latin American iron and steel industry has been intensive, in 1957[2] the region could not cover from domestic sources more than 53 per cent of its requirements in rolled products; total consumption was 5.7 million tons, of which 2.7 million were imported and 3 million manufactured in Latin America. Steel ingot production amounted to 3.3 million tons, which meant that, in order to reach the above-mentioned figure for rolled products, Mexico had to import 158 000 tons of ingot and semi-finished goods, and Argentina, 573 000 tons of billet. Furthermore, Venezuela imported 375 000 tons of tubing for its petroleum industry. Latin America's dependence on extra-regional imports was therefore higher than might be deduced from the figures for finished products.

The principal importer country was Argentina, which purchased some 539 000 tons of rolled products, equivalent to 44 per cent of its consumption of finished goods. Taken in conjunction with imports of billet for rerolling the proportion would rise to more than 80 per cent. Venezuela imported 420 000 tons of rolled products and 375 000 tons of tubing. These purchases represented almost the whole of Venezuelan consumption, since production plans are only just beginning to take definite shape.

Mexico takes third place with imports of 503 000 tons of rolled products and 158 000 tons of ingot and semi-finished products, which correspond to nearly hal its consumption. This indicates considerable dependenc on external sources, in spite of the rapid development o the Mexican iron and steel industry which is the secon biggest in Latin America.

By contrast, Brazil, the leading Latin American producer, imported no more than 230 000 tons of finishe goods (17 per cent of its consumption), while Colombi bought 183 000 tons of rolled products abroad —equivalent to double its internal output— and Peru, which has begun to produce domestically 120 000 tons. Lastly the other Latin American countries as a whole depende entirely on imports, which amounted to 750 000 tons These data are given in greater detail in tables 1 and 2

Chile was the only Latin American country to have exportable surpluses in 1957. Its *net* exports of finished products amounted to some 80 000 tons, which is undeniably little in comparison with the amount imported by other countries. Much the same may be said of its exports of semi-finished goods to Argentina (32 000 tons), which did not represent a very significant proportion of the latter's total purchases of such goods (573 000 tons).

Another aspect which should be stressed in an outline of the iron and steel supply situation in 1957 is the distribution of consumption as between flat and non-flat products and their origin —local or foreign. Although the limited statistical information available makes it necessary to confine the break-down to seven countries of the region, namely, Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela, these represent more

---

[2] Throughout this study 1957 has been taken as the base year, except in the case of Venezuela for which 1958 was adopted owing to the exceptional level of steel consumption in the preceding year.

Table 1

LATIN AMERICA: STEEL INGOT PRODUCTION, 1957 AND 1965

(Thousands of tons)

Country	*1957*	*1965*
ntina (1st hypothesis)	200	1 027 a
entina (2nd hypothesis)]		[1 572 a]
il	1 470	4 297
ombia	125	300
e	388	650
ico	1 050	2 600
1	—	130
ezuela	45 b	870
er countries	—	240
Fotal (according to the 1st Argentine hypothesis)	*3 278*	*10 074*
Fotal (according to the 2nd Argentine hypothesis)]		*[10 619]*

rce: This table summarizes, by countries, the conclusions reached in the fferent sections of the present study.

ne first hypothesis for the San Nicolás plant belonging to the *Sociedad ixta "Siderurgia Argentina"* (SOMISA) postulates one blast furnace only d the second hypothesis two blast furnaces.

he base year adopted was 1958, since 1957 was an unusual year for Vene- elan consumption.

an 85 per cent of Latin America's steel consumption. the special purchase of 375 000 tons of tubing for nezuela's petroleum industry is discounted, the situa- n in this group of countries is as follows:

	Production	*Imports*	*Apparent consumption*
	(Thousands of tons)		
ter than flat products	1 940	1 150	3 090
t products	1 103	765	1 868
Fotal	*3 043*	*1 915*	*4 958*

As may be seen, consumption of flats in Latin Ameri- in 1957 constituted about 38 per cent of total con- mption of finished rolled products, which is a smaller oportion than that registered in more highly-developed untries.

At the same time, Latin American manufacturers have en concentrating more on non-flat (1 940 000 tons) an on flat (1 103 000 tons) products. Largely as a sult of more complex techniques, the need for a bigger arket and the higher capital requirements that are as- ciated with the production of flats, the ratio of domestic tput to imports of flat and non-flat products differs ite considerably from one country to another; for inst- ce, production of flats is small in Argentina, negli- ble in Peru and non-existent in Colombia and Vene- ela, whereas the balance is fairly well preserved in azil and Chile. In Mexico, on the other hand, great forts have been made to increase the manufacture of ats and the majority of its imports now consist of non- at products.

The situation outlined above —a summary of the lient features of Latin America's iron and steel econo- y in 1957— will change in the course of the next few ars. Data available at present indicate that require- ents of finished products will probably be in the nature 11 million tons in 1965.

Plans for expanding Latin America's productive capacity also anticipate an increased rate of growth. Total production of steel ingots is assumed to reach some 10 million tons and that of finished products about 8.5 million tons. Even if Latin American iron and steel production triples between 1957 and 1965 and demand only doubles, the foregoing figures indicate that total coverage of the region's requirements would still call for imports of 2.6 million tons of finished products in 1965, i.e., almost as much as in 1957. Moreover, Argentina's imports of ingot and semi-finished products would rise from 573 000 to 1.2 million tons.

From the point of view of production, the largest increments would be in Brazil, which would turn out more than 4 million tons of ingot, and Mexico, with an output of about 2.6 million tons. Argentina, which has so far had no integrated iron and steel industry, is forming one and will probably produce more than a million tons of ingot annually.

Venezuela is also organizing an integrated complex, with, a target of over 800 000 tons for 1965. Chile's expansion plans would raise its output of ingot to some 650 000 tons by the same year.

A comparison of the projections of production and demand indicates that Chile may well be exporting rolled products in 1965. Its surpluses are likely to be as much as 150 000 tons (80 000 tons of flats and 70 000 tons of semi-finished products for rerolling), although these quantities are still small in relation to the import requirements of the other Latin American countries.

With respect to Brazil and Mexico, the projections of demand and the industry's expansion programme seem to coincide fairly closely. The result may be either exportable surpluses or a continued need for imports, but in either case the quantity would probably be small in relation to the size of the internal market.

The situation of Argentina and Venezuela is very different. They will probably have the same deficit in respect of finished products in 1965 —even with the scheduled integrated industries— as in 1957. Moreover, as already mentioned, Argentina will have to import 1.2 million tons of ingot and semi-finished products for rolling.

Finally, in the other countries of the region, which have no iron and steel industry or fairly small plants only, aggregate import requirements may increase from 1 million tons in 1957 to about 1 600 000 in 1965.

Table 3 gives, in some detail, the most important figures quoted. Briefly, the Latin American countries' anticipated import requirements of iron and steel products in 1965 may be summed up as follows:

	Thousands of tons
Ingot and semi-finished products for Argentina	1 200
Tubing for Venezuela	355
Non-flat products for Latin America as a whole	1 150/1 200
Flat products for Latin America as a whole	1 100/1 400

It is by no means superfluous to stress the fact these projections are based on present expansion programmes. A deficit of the size just mentioned could be a heavy burden on Latin America's balance of payments, since the corresponding imports, at current prices, would involve the expenditure of more than 500 000 dollars in

Table 2

LATIN AMERICA: STEEL ECONOMY BALANCE-SHEET, 1957

(Thousands of tons)

	Finished rolled products	*Other than flat products*	*Flat products*	Remarks
Argentina				
Production	683	597	86	In addition, 573 000 tons billet for rerolling were imp ed
Apparent consumption	1 222	718	504	
Deficit made up by imports	539	121	418	
Brazil				
Production	1 130	626	504	
Apparent consumption	1 360	726	634	
Deficit made up by imports	230	100	130	
Colombia				
Production [a]	78	78	—	
Apparent consumption	261	189	72	
Deficit made up by imports	183	111	72	
Chile				In addition, some 34 000 tons semi-finished products for re ling were manufactured, of wh 2 000 tons were for inter consumption and 32 000 t were exported to Argentina
Production	274	136	138	
Apparent consumption	194	103	91	
Surplus exported (+)	+ 80	+ 33	+ 47	
Mexico				
Production	834	460	374	In addition, 158 000 tons of st ingot and material for reroll were imported
Apparent consumption	1 337	915	422	
Deficit made up by imports	503	455	48	
Peru				
Production	4	3	1	
Apparent consumption	124	84	40	
Deficit made up by imports	120	81	39	
Venezuela [b]				
Production	40	40	—	In addition, 375 000 tons of t ing were imported
Apparent consumption	460	355	105	
Deficit made up by imports	420	315	105	
Other countries				
Production	—			
Apparent consumption	750			
Deficit made up by imports	750			
Grand total				
Production	3 043			
Apparent consumption	5 708			
Deficit made up by imports	2 665			
Total (Argentina, Brazil, Colombia, Chile, Mexico, Peru, Venezuela)				
Production	3 043	1 940	1 103	
Apparent consumption	4 958	3 090	1 868	
Deficit made up by imports	1 915	1 150	765	

SOURCE: See table 1.

[a] Production sold.

[b] The base year adopted was 1958, since 1957 was an unusual year for Venezuelan consumption.

Table 3

LATIN AMERICA: STEEL ECONOMY BALANCE-SHEET, 1965

(Thousands of tons)

	Finished rolled products	*Other than flat products*	*Flat products*	*Remarks*
ıtina (1st hypothesis) [a]				
oduction programmed	1 870	1 330	540	In addition, 417 000 tons of ingot, 108 000 tons of slab and 750 000 tons of billet would be imported
obable demand	2 400	1 248	1 152	
Deficit or surplus (+)	530	+ 82	612	
ntina (2nd hypothesis) [a]				
oduction programmed	2 189	1 385	804	In addition, 656 000 tons of ingot and 550 000 tons of billet would be imported
obable demand	2 400	1 248	1 152	
Deficit or surplus (+)	211	+ 137	348	
l				
oduction programmed	3 129	1 551	1 578	
obable demand	3 129	1 551	1 578	
Deficit or surplus (+)	—	—	—	
mbia				
oduction programmed	248	139	109	
obable demand	495	310	185	
Deficit	247	171	76	
e				
oduction programmed	460	170	290	Some 81 000 tons of semi-finished products would also be produced for rerolling, of which 12 000 tons would be for the internal market and 69 000 tons for export
obable demand	400	188	212	
Deficit or surplus (+)	+ 60	18	+ 78	
ico				
oduction programmed [b]	2 000	1 200	800	
obable demand	2 000	1 200	800	
Deficit	—	—	—	
oduction programmed	100	70	30	
obable demand	190	127	63	
Deficit	90	57	33	
ezuela				
oduction programmed	355	355	—	In addition, 295 000 tons of tubing would be produced and 355 000 tons imported
obable demand	850	553	297	
Deficit	495	198	297	
er countries				
oduction programmed	200	200	—	
obable demand	1 500	1 050	450	
Deficit	1 300	850	450	
l (In the case of the 1st Argentine hypothesis)				
oduction programmed	8 362	5 015	3 347	
obable demand	10 964	6 227	4 737	
Deficit	2 602	1 212	1 390	
l (In the case of the 2nd Argentine hypothesis)				
oduction programmed	8 681	4 070	3 611	
obable demand	10 964	6 227	4 737	
Deficit	2 283	1 157	1 126	

CE: See table 1.

e first hypothesis for the San Nicolás plant belonging to the *Sociedad Mixta "Siderurgia Argentina"* (SOMISA) postulates one blast furnace only and the second pothesis two blast furnaces.

foreign exchange annually. Such an enormous deficit would undoubtedly be a powerful incentive for proceeding more energetically with plans to expand regional production, both in the countries which have large import requirements and those which could export i and steel products intra-regionally, provided that s trade were carried on much more vigorously than it at present.

II. Analysis by countries

1. *Argentina*

(a) *The over-all situation*

In the last few years, Argentine production of rolled products has reached substantial proportions (see table 4). But some comments should be made on this apparently positive result in order to reveal the weakness of the iron and steel industry in that country.

(i) Argentina has no integrated iron and steel industry. It has plants for smelting steel with an annual capacity of some 250 000 tons, consisting of small open-hearth furnaces with a capacity ranging from 8 to 30 tons. In 1958, 230 000 tons of steel ingot for rolling were turned out. Thus the manufacture of the 876 000 tons of final products indicated in table 4 called for the importation of some 760 000 tons of semi-finished products for subsequent rerolling.

(ii) In order to attain the recent level of steel ingot production, large quantities of scrap to load the open-hearth furnaces had to be imported as well as part of the fuel used in processing.

(iii) As may be seen from table 4 (column F), most of the output consists of non-flat products, chiefly bars, which are the cheapest and most common products on the world market. Since they are rolled in several small mills, production efficiency taken as a whole tends be low. Some estimates place rolling capacity as high 1 million tons, but only part of it is utilized owing to t difficulty of obtaining raw materials and the unrelia condition of some of the equipment. The manufact of narrow flats, such as strip, is fairly up-to-date, b neither plate nor tinplate is produced, and sheet out is very limited (not more than 1 or 2 per cent of to rolled products).

These considerations show that Argentine consum tion is extremely dependent on imports which, in th turn, depend on the balance-of-payments situation a the international steel supply. In 1957, Argentina p duced 680 000 tons of finished rolled products, but h to import 540 000 tons to cover consumption. Its r ance on foreign sources is particularly marked in t case of flats, of which only 86 000 tons were man factured and more than 400 000 imported (see ag table 4 and table 5).

Table 6 presents statistics of the apparent consum tion of rolled products from 1946 to 1957. After t Second World War, Argentina had sizable foreign e change reserves which helped to meet steel demand, b the world supply of rolled products was by no mea abundant. This restricted consumption which rose fr

Table 4

ARGENTINA: OUTPUT OF ROLLED STEEL PRODUCTS

(Tons)

Year	Steel ingot: Domestic production [a] (X)	Steel ingot: Imported billet [d] (Z–X) (Y)	Steel ingot: Apparent consumption [c] (Z)	Strip [d] (A)	Percentage A/H	Plate [e] (B)	Sheet (C)	Percentage C/H	Tinplate [e] (D)	Total flat products (A+B+C+D) (E)	Percentage E/H	Other than flat products (F)	Percentage F/H	Over-all total (E+F) (H)
1946 . . .	124 000	19 000	143 000	1 867	1.5	—	1 247	1.0	—	3 114	2.5	123 136	97.5	126 250
1947 . . .	115 000	57 000	172 000	3 175	2.1	—	3 608	2.4	—	6 783	4.5	145 434	95.5	152 217
1948 . . .	113 000	70 000	184 000	3 026	1.9	—	1 359	0.8	—	4 385	2.7	158 261	97.3	162 646
1949 . . .	115 000	126 000	241 000	2 965	1.4	—	2 519	1.2	—	5 484	2.6	207 145	97.4	212 629
1950 . . .	118 000	181 000	299 000	3 921	1.5	—	2 586	1.0	—	6 507	2.5	257 514	97.5	264 021
1951 . . .	123 000	213 000	336 000	5 761	2.0	—	2 119	0.7	—	7 880	2.7	288 647	97.3	296 527
1952 . . .	116 000	217 000	333 000	6 846	2.3	—	3 125	1.1	—	9 971	3.4	284 580	96.6	294 551
1953 . . .	154 000	157 000	311 000	32 107	12.0	—	5 798	2.0	—	37 905	14.0	236 718	86.0	274 623
1954 . . .	160 000	434 000	594 000	66 848	13.0	—	4 342	1.0	—	71 190	14.0	454 823	86.0	526 013
1955 . . .	191 000	563 000	754 000	62 828	9.0	—	4 715	1.0	—	67 543	10.0	591 312	90.0	658 855
1956 . . .	186 000	507 000	693 000	72 391	12.0	—	6 922	1.0	—	79 313	13.0	533 718	87.0	613 031
1957 . . .	199 000	573 000	772 000	76 329	11.0	—	10 083	2.0	—	86 412	13.0	596 848	87.0	683 260
1958 . . .	230 000	760 000	990 000	97 930	11.0	—	5 957	1.0	—	103 887	12.0	772 356	88.0	876 243

Source: *Centro de Industriales Siderúrgicos*, Buenos Aires.

a Corresponding to the figures given by the *Centro de Industriales Siderúrgicos de Argentina* under the head of "steel ingot for rolling and castings", which been reduced by 5 per cent (representing the proportion of steel used for castings).

b Calculated by subtraction (column Z minus column X).

c Apparent consumption of ingot for the manufacture of rolled products. The figures have been calculated on the basis of the figures in column H, multiplied by conversion coefficient of 1.13; this was chosen instead of the more usual coefficient of 1.33, because ingot of the billet type is used, which reduces the in scrap.

d Including strip for the manufacture of seamless tubes.

e Nil or negligible.

Table 5

ARGENTINA: IMPORTS OF ROLLED STEEL PRODUCTS

(Tons)

Year	Strip (A)	Percentage A/H	Plate [a] (B)	Percentage B/H	Sheet [a] (C)	Percentage C/H	Tin-plate (D)	Percentage D/H	Total flat products (A+B+C+D) (E)	Percentage E/H	Other than flat products (F)	Percentage F/H	Overall total (E+F) (H)	Percentage
. . . .	31 981	8	26 908	6	82 704	19	37 093	9	178 686	42	250 614	58	429 300	100
. . . .	38 930	5	42 895	6	132 678	18	77 773	11	292 276	40	434 290	60	726 566	100
. . . .	37 690	5	52 445	7	170 233	22	77 371	10	337 739	44	434 526	56	772 265	100
. . . .	33 747	5	40 187	6	124 807	18	34 868	5	233 609	34	453 421	66	687 030	100
. . . .	51 853	8	33 953	5	114 626	17	57 725	9	258 157	39	397 233	61	655 390	100
. . . .	55 060	7	72 219	9	225 634	28	85 388	11	438 301	55	359 330	45	797 631	100
. . . .	11 149	3	18 803	5	73 485	21	68 159	20	171 596	49	178 096	51	349 692	100
. . . .	1 559	1	21 449	9	64 350	28	51 776	22	139 134	60	92 129	40	231 263	100
. . . .	7 852	1	84 264	13	252 822	38	65 405	10	410 343	62	247 085	38	657 428	100
. . . .	1 585	1	78 982	10	236 953	32	106 816	14	424 336	57	323 842	43	748 178	100
. . . .	1 667	1	70 172	12	210 517	37	115 506	20	397 862	70	172 713	30	570 575	100
. . . .	1 260	—	69 366	13	208 097	39	138 950	26	417 673	78	121 259	22	538 932	100

CES: *Anuarios de Comercio Exterior*, Argentina.

A estimates—there are no separate items for "plate" and "sheet" in the *Anuarios de Comercio Exterior*. The *Anuarios* have item 1056 (2) headed "bars, te or narrow plate" and item 1059 "sheet" which also includes plate. Hence, 35 per cent of the first item was taken and added to the whole of the second, and per cent of the final figure was considered as "plate" (see column B) and 75 per cent "sheet". Galvanized rolled products, item 1065 in the *Anuarios*, were ded to the percentage for sheet, and the total given in column C as "sheet".

000 tons in 1948 to 1.1 million tons in 1951 in line h inventories and then fell in 1952 as a result of the te foreign exchange crisis which developed at that e and still persists. These circumstances led to the dent fluctuations in consumption. Apparent consump- n was 500 000 tons in 1953, i.e., less than in 1946. rthermore, although it mounted to 1.4 million tons in 55, it dropped again to 1.2 million in 1956 and 1957.

The contraction in consumption is of course most rked in the case of flat products, which are almost irely imported. Apparent consumption of sheet fell from 228 000 tons in 1951 to slightly more than 70 000 in 1952 and 1953. Plate consumption dropped simultaneously from 72 000 to 20 000 tons and has barely regained its 1951 level in the last few years.

It is important to note that steel imports absorb a large percentage of Argentina's foreign exchange budget.[3]

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[3] Further details on the disequilibrium of the Argentine balance of payments in relation to the supply of iron and steel products are given in *El desarrollo económico de la Argentina*, Part Two, B, (United Nations Publications, Sales No.: 59.II.G.3. Vol. II.

Table 6

ARGENTINA: CONSUMPTION OF ROLLED STEEL PRODUCTS

(Tons)

Year	Strip (A)	Percentage A/H	Plate [a] (B)	Percentage B/H	Sheet [a] (C)	Percentage C/H	Tin-plate (D)	Percentage D/H	Total flat products (A+B+C+D) (E)	Percentage E/H	Other than flat products (F)	Percentage F/H	Overall total (E+F) (H)	Percentage
46	33 848	6	26 908	5	83 951	15	37 093	7	181 800	33	373 750	67	555 550	100
47	42 105	5	42 895	5	136 286	15	77 773	9	299 059	34	579 724	66	878 783	100
48	40 716	4	52 445	6	171 592	19	77 371	8	342 124	37	592 787	63	934 911	100
49	36 712	4	40 187	5	127 326	14	34 868	4	239 093	27	660 566	73	899 659	100
50	55 774	6	33 953	4	117 212	13	57 725	6	264 664	29	654 747	71	919 411	100
51	60 821	6	72 219	6	227 753	21	85 388	8	446 181	41	647 977	59	1 094 158	100
52	17 995	3	18 803	3	76 610	12	68 159	10	181 567	28	462 676	72	644 243	100
53	33 666	7	21 449	4	70 148	14	51 776	10	177 039	35	328 847	65	505 886	100
54	74 700	6	84 264	7	257 164	22	65 405	6	481 533	41	701 908	59	1 183 441	100
55	64 413	5	78 982	6	241 668	17	106 816	7	491 879	35	915 154	65	1 407 033	100
56	74 058	6	70 172	6	217 439	18	115 506	10	477 175	40	706 431	60	1 183 606	100
57	77 589	6	69 366	6	218 180	18	138 950	11	504 085	41	718 107	59	1 222 192	100
65 [a]. . . .					672 000	28			1 152 000	48	1 248 000	52	2 400 000	100
67 [a]. . . .					780 000	30			1 300 000	50	1 300 000	50	2 600 000	100

URCE:: See tables 4 and 5. Apparent consumption = production + imports.

ECLA estimates.

Table 7

ARGENTINA: IRON AND STEEL CONSUMPTION

(Annual averages)

Period	Aggregate (Tons)	Per capita (Kilogrammes)
1900–04	322 000	67
1905–09	894 800	157
1910–14	1 036 200	143
1915–19	251 200	30
1920–24	709 600	75
1925–29	1 282 200	117
1930–34	732 000	59
1935–39	934 000	69
1940–44	290 000	20
1945–49	999 000	62
1950–54	995 000	54
1955.	1 650 000	86
1956.	1 255 000	64

SOURCE: ECLA estimates.

In short, the evolution of iron and steel consumption in Argentina has been far from favourable, as may be appreciated from table 7, and its levels in recent years have been very low in relation to population and income. Sufficient proof of this is the fact that during 1950-54 annual consumption stood at 995 000 tons, i.e., it was lower than it had been 25 years before (1 282 000 tons in 1925-29).

Even more impressive is the decline of consumption in relation to the population. The annual *per capita* average of 54 kilogrammes registered in 1950-54 is less than half the figure of 117 kilogrammes for the five-year period prior to the world slump, which, in turn, was considerably below its level in the first few years of the century when there was vigorous capital formation. In 1955 and 1956, annual *per capita* consumption rose to an average of 75 kilogrammes.

These data indicate that consumption is currently lagging far behind requirements. In its study, *El desarrollo económico de la Argentina,*[4] ECLA has put forward some hypotheses on the future development of Argentina's economy, which estimate that the national product would increase 78 per cent between 1955 and 1967. On the basis of this figure, an increment of 84 per cent in demand for rolled steel was assumed; in other words, consumption would rise from 1 400 000 tons in 1955 to 2 600 000 in 1967.

In accordance with the distribution of consumption by products (see again table 6) and taking into account the fact that greater economic development implies heavier consumption of flats, utilization of the latter has been raised to 50 per cent of total rolled products. Non-flat products, estimated at 1 300 000 tons in 1967, would account for the remaining 50 per cent.

As the ECLA study includes projections of demand up to 1967, by interpolation the following figures are obtained for 1965, which would correspond to a distribution of 48 per cent for flats and 52 per cent for non-flat products:

	Thousands of tons
Total rolled products.	2 400
Non-flat products	1 250
Flat products	1 150

It should be noted that in the years that have alrea elapsed since 1955 (the base year), the product h increased at much lower rates than those assumed f the projection of steel consumption in the study. U less the Argentine economy shows a striking upsur in the next five years, it may be necessary to redu figures given here for 1965 by 15 to 20 per cent.

(b) *Development of production*

The situation just described has led to a search f ways and means of increasing the supply of steel to t Argentine economy through the creation of an integrat iron and steel industry. This matter has been dealt wi extensively in the ECLA study on Argentina and will n be reopened here. It only remains to describe the mo outstanding aspects of Argentina's iron and steel pr gramme in so far as they are relevant to this repo i.e., its programmes for developing domestic productio

Up to now, private industry has been virtually t only producer of ingot and rolled steel in Argentina. I capacity, as mentioned before, is 250 000 tons of ing and 1 million tons of rolled products, but has be utilized only partially because of difficulties in obtai ing a supply of raw materials and the poor condition some equipment. It is estimated that a third of the pla ought to be replaced since it is very obsolescent, t remaining two-thirds being up-to-date. If this is don and a prudent margin of about 10 per cent is kept reserve, as already planned by some enterprises, it ma be possible to reach the above-mentioned production lev of 1 million tons. With respect to the supply of ra materials for private industry, the *Sociedad Mixta S derúrgica Argentina* (SOMISA),[5] which is now construc ing the "General Savio" plant at San Nicolás on t River Paraná, has already prepared the first stage its plan for supplying up to 132 000 tons of domesticall produced billet (318 000 tons during the second stage to supplement the 250 000 tons of ingot mentioned pr viously. Should private industry then continue to impo some 750 000 tons of billet for rerolling (550 000 du ing the second stage), the target of 1 million tons rolled products would be reached.

Except for the renovation of rolling mills and t modest expansion required to attain the above-mentione target, existing private industry seems to have no pla for expanding capacity any further, and its volume an production policy will remain unchanged.

The charcoal-burning plant at Zapla, in the provin of Jujuy in the north of Argentina produces only 35 00 tons of pig iron, but it is hoped that with the entry int operation of two new blast furnaces its output will ris to some 165 000 tons by 1960 or a little later.

The plant's expansion plans include complete i tegration by 1962 through the installation of a Thoma steel mill —which is needed because of the phosphorou content of the ore— and rolling mills to convert th steel into bars and small shapes for consumption i northern Argentina. Hence out of the projected produ tion of 165 000 tons of charcoal pig iron, 145 000 ton would be consumed in the plant itself for the manu facture of 120 000 tons of rolled products.

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[4] *Op cit.*

[5] The plant's entire production programme is given in table

Table 8

ARGENTINA: PRODUCTION PROGRAMME OF THE *SOCIEDAD MIXTA "SIDERURGIA ARGENTINA"* (FIRST STAGE)

General Savio plant, San Nicolás

(Thousands of tons)

Pig iron		*Steel ingot*[b]		*Blooms and slab*[c]		*Rolled products*[d] *Final production*	
able production ne blast furnace)	515	*Imports*	417				
zation:							
reserve . . .	30						
eles.	—						
r steel making[a]	485						
		Production	632				
		Availability	1 049				
		Of which the following will be used:		*Blooms*			
		For blooms.	417	Production.	365		
				Availability.	365		
				Of which the following will be used:			
				For billet	135	Billet for private industry.	132
				For other than flat products.	230	Other than flat products.	210
				Slab		*Of which:*	
		For slab	632	*Imports*	108	Rails	100
				Production.	552	Shapes	110
				Availability.			
				For manufacturing flat products	660	Flat products . . .	540
						Of which:	
						Plate	135
						Sheet	265
						Tinplate.	140
						Total rolled products (excluding billets).	750
						Grand total	882

ce: Information supplied by the *Sociedad Mixta "Siderurgia Argentina"*.

ot included in this table are scrap supplies (domestic, imported or circulating) and other materials required in steel making in order to reach the steel ingot oduction level indicated.

or the first stage, a plant with four open hearth furnaces of 230 tons/load is projected. Other open hearth furnaces with a 250 ton/load capacity, or converters stead of the open hearth furnaces, or a Duplex solution, would be installed for the second stage.

the first stage, the blooming mill would combine the rolling of blooms and slab. In the second stage, the programme assumes that a slabbing mill would e acquired which would leave the first mill free for blooms only.

he final rolling equipment in the first and second stages would consist of:

1. A continuous rolling mill for obtaining billet from blooms;
2. A combined rolling mill for rails and structural shapes;
3. A continuous rolling mill for hot plate and sheet with their respective finishing lines for cold-rolled black sheet, electrolytic tinplate and hot-dipped tinplate.

In the third stage, a special plate mill will be added.

It should be emphasized that the Zapla works will e nothing but domestic raw materials and fuels for its n and steel production. Even so, there seems to be immediate prospect of raising output above the levels dicated without access to an abundant supply of eleccity, since the works would have either to enlarge their n eucalyptus plantations or obtain supplies from prive sources at anti-economic distances. The same proction figures as those projected for 1962 have therere been maintained for 1965. Last but not least, it is ped that the new integrated iron and steel plant of the MISA will be able to start operations in 1960 and that, during the first stage of production (one blast furnace) from 1961 onwards, it will turn out 515 000 tons of pig iron and 632 000 tons of steel (see table 8). Most of the iron ore and coal needed for pig iron production will have to be imported.

Thus, during the initial phase of production, 882 000 tons of rolled products would be manufactured at San Nicolás, of which 750 000 would consist of finished goods and 132 000 of billet to supply part of the requirements of private industry. The production programme for 1962 would then be as follows:

	Thousands of tons
Rails and accessories	100
Shapes	110
Plate	135
Hot rolled sheet	135
Cold rolled sheet	130
Tinplate	140
Total rolled products	750
Billet for private industry	132
Total	882

The year 1965 is given for the second stage (two blast furnaces) as a mere indication only. The presumed programme of annual production for this stage is given below:

	Thousands of tons	
Pig iron	1 030	
Steel ingot	1 177	
Rails and accessories		140
Shapes		125
Plate		254
Hot rolled sheet		150
Cold rolled sheet		220
Tinplate		180
Total rolled products		1 069
Billet for private industry		318
Total		1 387

It is none the less very important to point out that, although most of the raw materials needed (iron ore and coal) would have to be imported, the completi of both stages would also require the importation, b the integrated mill at San Nicolás and by private indu try, of ingot and semi-finished products in the amoun shown in table 9.

Table 9

ARGENTINA: ANTICIPATED IMPORTS OF INGOT AND SEMI-FINISHED PRODUCTS
(Tons)

Annual imports	*First stage*	*Seco stag*
Ingot (for SOMISA)	417 000	656 0
Slab (for SOMISA)	108 000	-
Billet (for private industry)	750 000	550 0

SOURCE: See table 8.

SOMISA is also contemplating a third stage (three bla furnaces) but without setting a date. All the rollin equipment for the first two stages, and particularly th continuous wide-strip mill, have been planned with su ficient capacity for a third stage, the only addition nee ed being a special plate mill which would enable th continuous mill to be used more efficiently since it coul specialize in sheet.

To sum up, the situation in 1965 would be as fo lows: First hypothesis — only the first stage envisage by SOMISA would be completed in 1965; Second hypoth

Table 10

ARGENTINA: STEEL ECONOMY BALANCE-SHEET, 1957 AND 1965
(Thousands of tons)[a]

	Steel ingot	*Rolled products*	*Other than flat products*	*Flat produc*
1957				
Production	199	683	597	86
Apparent consumption	772	1 222	718	504
Deficit made up by imports (—)	— 573	— 539	— 121	— 418
1965, 1st hypothesis (completion of only the first stage envisaged by SOMISA)				
Production: Private industry	250	1 000	1 000	—
Zapla	145	120	120	—
SOMISA	632	750	210	540
Total production	*1 027*	*1 870*	*1 330*	*540*
Probable demand		2 400	1 248	1 152
Exportable surplus (—) or deficit to be made up by imports (—)	— 417	— 530	+ 82	— 612
In addition: Imports of slab	— 108			
Imports of billet	— 750			
1965, 2nd hypothesis (completion of second stage envisaged by SOMISA)				
Production: Private industry	250	1 000	1 000	—
Zapla	145	120	120	—
SOMISA	1 177	1 069	265	804
Total production	*1 572*	*2 189*	*1 385*	*804*
Probable demand		2 400	1 248	1 152
Exportable surplus (+) or deficit to be made up by imports (—)	— 656	— 211	+ 137	— 348
In addition: Imports of billet	550			

SOURCES: The foregoing text of chapter III and tables 4, 5, 6, 8 and 9.
[a] The difference in the sum of the various components is due to rounding of figures.

— the second stage envisaged by SOMISA would be npleted.

According to the first hypothesis, Argentina would duce 1 870 000 tons of finished products, of which 30 000 would be non-flats and 540 000 flats. It would ı be able to satisfy its entire requirements of non- products and even export a small amount. By con- st, more than 600 000 tons of flats would have to be ɔorted (see table 10).

According to the second hypothesis, Argentina would rease its output of finished products to 2 190 000 s, divided into 1 385 000 tons of non-flat products l 805 000 tons of flats. Hence the exportable surplus non-flats would amount to about 140 000 tons and the ance to be imported would decrease to 350 000 tons flats. However, in view of the intensive petroleum relopment programme that is being carried out, there y be no surplus left over for export.

It should not be forgotten that if such programmes to be implemented, more than 1 200 000 tons of ingot l semi-finished products would have to be imported nually (see again table 10).

Some interest has also been shown in the establish- ent of an integrated iron and steel mill, using the ctric reduction furnace process, on the coast in the ıth of Argentina, close to the iron ore deposits of Sierra Grande.

This plan is likely to materialize, since the hydro- ctric capacity is very large and arrangements for start- the generation of energy at El Chocón power station e well advanced. The mill, like that at Zapla, would e domestic inputs.

There are also plans for a new enterprise, *Altos Hor- ss y Acería del Paraná, S. A.*, an iron and steel mill in e province of Santa Fe, on the River Paraná, south Rosario.

2. *Brazil*

Brazil, the foremost steel producer in Latin America, anufactured almost 1.5 million tons of ingot in 1957. 1965, its production may possibly exceed 4 million ns.

In 1957, Brazil was able to satisfy from domestic urces 83 per cent of its requirements, and it is hoped at by 1965 an approximate balance will have been ruck between production and demand.

ı) *The growth of consumption*

Apparent consumption of crude steel, calculated as e sum of domestic output and imports, has developed pidly in the last few years (see table 11 and figure I).

With respect to Brazil's prospects, various studies ave been made recently with a view to projecting future emand for crude steel, particular stress being laid on e period 1960-65. The results may be appreciated from ble 12 and figure II.

The first projection, based on an extrapolation of e straight-line trend observed in 1940-55, assumes that emand would be 2 580 000 tons in 1965. The second rojection took the period 1945-55 as a basis, thereby xcluding the years 1940-44, when imports were at an bviously abnormal level owing to the Second World Var. In this case, the straight-line trend indicates a larger acrement of about 2 800 000 tons towards 1965.

Table 11

BRAZIL: PRODUCTION, IMPORTS AND APPARENT CONSUMPTION OF STEEL INGOT

(Tons)

Year	*Domestic production (Steel ingot)*	*Imports (Equivalent in steel ingots)*	*Apparent consumption*
1940	141 201	368 734	509 934
1941	155 357	309 913	465 270
1942	160 139	151 467	311 606
1943	185 621	225 055	410 676
1944	221 188	409 274	630 462
1945	205 935	385 502	591 437
1946	342 613	557 774	900 387
1947	386 971	617 607	1 004 578
1948	483 085	299 240	782 325
1949	615 069	326 346	941 415
1950	788 557	353 491	1 142 048
1951	842 977	497 770	1 340 747
1952	893 329	497 134	1 390 463
1953	1 016 299	293 459	1 309 758
1954	1 148 322	832 670	1 980 992
1955	1 156 036	425 599	1 581 635
1956	1 337 000	300 000 a	1 637 000
1957	1 470 000	300 000 a	1 770 000
1958	1 647 000		

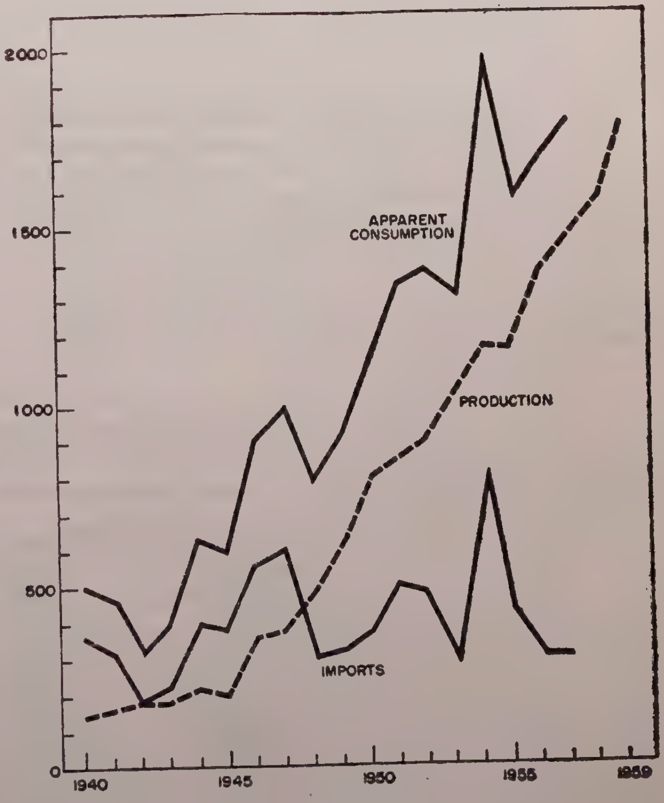
SOURCES: *Companhia Siderúrgica Paulista, Memoria Técnica* 1956; and information supplied by the *Banco Nacional do Desenvolvimento Econômico*.
a ECLA estimates.

Figure I

BRAZIL: PRODUCTION, IMPORTS AND APPARENT CONSUMPTION OF STEEL INGOT

(Thousands of tons per year)

NATURAL SCALE



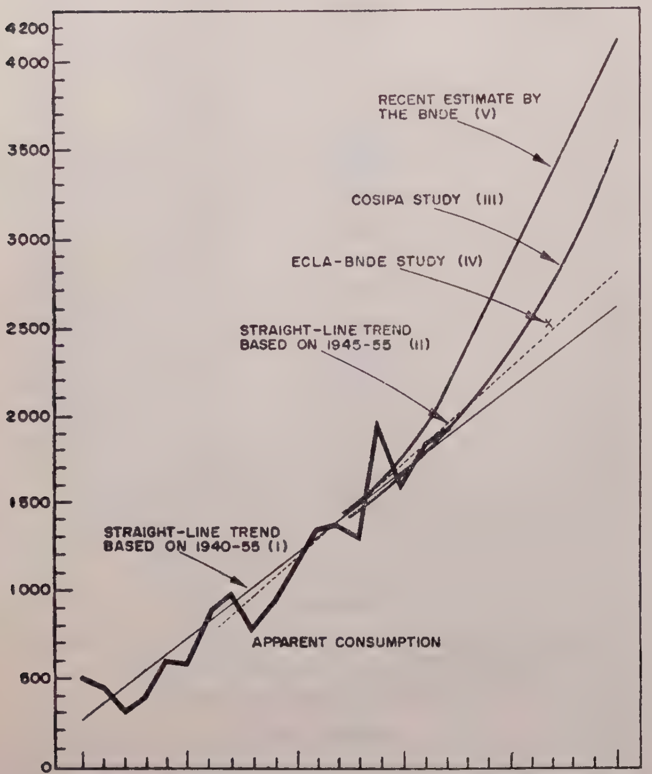
SOURCE: See table 11.

Figure II

BRAZIL: ESTIMATED FUTURE DEMAND FOR STEEL INGOT

(Thousands of tons per year)

NATURAL SCALE



SOURCES: See tables 11 and 12.

The *Companhia Siderurgica Paulista* (COSIPA) adopted a third method in 1956 for projecting future demand for crude steel in 1960-65, based primarily on the correlation which would exist between per capita steel consumption (y) and the industrialization rate (x).[6] This relation is expressed by the equation $\log y = 0.43155 + 0.04234\ X$, which has apparently been applied to countries at varying stages of development. In view the anticipated population increment in Brazil,[7] its a plication to that country would give a presumable tot demand of some 3 462 000 tons a year for crude steel 1965, which is considerably higher than the figures in t other two hypotheses.

The joint group formed by the *Banco Nacional* *Desenvolvimento Economico* (BNDE) and the Econom Commission for Latin America (ECLA) also estimat future steel demand in its 1956 study of Brazil's econom development.[8] It took into account projections of grow in various branches of industry (metal transformi industries, construction, agriculture, railways). The r sulting estimate for 1962 was 2 million tons of roll products, i.e., slightly more than 2.5 million tons ingot.

The projection formulated by COSIPA is the most opt mistic of the four. It is known that during the earl phases of important economic development periods, th growth of production is exponential rather than a straig line, Brazil being a case in point. In the light of th concept, the COSIPA estimates follow a typical line (se again figure II). If this line is to be compared with th trend in an industrialized country, where total and *p capita* consumption are at much the same level as i Brazil, Germany (including Luxembourg) might be suitable example to choose in spite of the very differe composition of demand in the two countries. Iron an steel consumption in Germany rose from 1.65 million t 3.5 million tons between 1880 and 1890, while the po ulation increased from 45 million to only 50 million. The comparison makes the COSIPA estimates appear co servative, since they presuppose that Brazil's consum tion would expand from 1.5 million tons of ingot i 1955 to 3.5 million in 1965 while its population woul rise from 58 to 74 million.

For this reason, the COSIPA projections were recentl revised by the BNDE.[10] Future demand was estimated fo

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[6] The industrialization rate is the relation between the index of industrial production and that of aggregate domestic production.

[7] 1955: 58 million inhabitants; 1960: 66 million; 1965: 7 million.

[8] See *The economic development of Brazil*, United Nation Publication, Sales Nº: 1956.II.G.2, Chapter VI.

[9] See Ingvar Svennilson, *Growth and stagnation in the E ropean economy*, Economic Commission for Europe, Geneva, 194 p. 274, and table a.40.

[10] In a recently-completed and still unpublished study. Th conclusions were communicated by the BNDE directly to ECLA.

Table 12

BRAZIL: ESTIMATED FUTURE DEMAND FOR STEEL INGOT

(Tons)

Year	*Method*				
	I Straightline trend 1940–1955	*II* Straightline trend 1945–1955	*III* COSIPA study	*IV* ECLA-BNDE study	V Recent estimate by the BNDE
1960	2 118 000	2 252 000	2 368 000	—	2 900 000
1961	2 210 950	2 359 340	2 550 000	—	—
1962	2 303 900	2 466 680	2 749 000	2 500 000	3 400 000
1963	2 396 850	2 574 020	2 967 000	—	—
1964	2 489 800	2 681 360	3 204 000	—	—
1965	2 582 750	2 788 700	3 462 000	—	4 120 000

SOURCES: *Companhia Siderúrgica Paulista, Memoria Técnica 1956*; and information supplied by the *Banco Nacional do Desenvolvimento Econômico.*
a ECLA estimates.

ustries existing in 1956, on the basis of average con-ption during 1954 to 1956 to which the following metric rates of growth were applied in accordance h the trend of apparent consumption from 1947 to 6:

Product	Rate
late	8.1
t, tubes and other flat products	8.0
es (excluding rails)	8.0
n wire	6.1

To the figures thus obtained was added anticipated sumption of:

rails and accessories for the railway re-equipment gramme;

sheet and other steel products for the newly-created tor-vehicle industry, as indicated in the programme ap-ved by the GEIA;[11] and

(c) plate and other steel products for the shipbuilding industry which was initiated a short while ago.

The results of the estimates are given in terms of ingots in the last column of table 12, from which it may be seen that total crude steel consumption in 1965 is estimated at 4 120 000 tons. The iron and steel enterprises are naturally making every effort to attain production levels that would satisfy future demand on a scale comparable to that postulated by the BNDE. As indicated later, this figure is roughly that of the production level planned for 1965, i.e., 4 297 000 tons.

(b) *The market for the different rolled products*

At this juncture, some consideration should be given to the probable division of the market according to the various rolled products manufactured by Brazil's iron and steel industry.

Table 13 gives the apparent consumption of rolled

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[11] Study Groups on the Motor Vehicle Industry (*Grupo de utos da Industria Automovilistica*).

Table 13

BRAZIL: CONSUMPTION OF ROLLED STEEL PRODUCTS

(Thousands of tons)

Year	Strip[a] (A)	Plate[a] (B)	Sheet[a] (C)	Sheet[a] % C/H	Tinplate (D)	Tinplate % D/H	Total flat products[b] (A+B+C+D) (E)	Total flat products[b] % E/H	Other than flat products (F)	Other than flat products % F/H	Grand total (E+F) (H)	Grand total %
7	...	...	...		78	11	293	40	440	60	733	100
8	...	...	...		74	13	240	42	332	58	572	100
9	...	...	...		66	10	297	43	397	57	694	100
0	...	...	...		86	10	326	39	514	61	840	100
1	...	...	...		137	13	442	42	619	58	1 061	100
2	...	...	...		115	11	481	45	586	55	1 067	100
3	...	...	...		105	10	436	43	571	57	1 007	100
4	...	...	...		155	11	614	42	862	58	1 476	100
5	...	..			110	9	583	46	688	54	1 271	100
6	...	...	...		172	13	613	47	693	53	1 306	100
7[c]	...	...	...		...		634	46	726	54	1 360	100
jections:												
1960												
dustries already existing in 1956	...	...	...		215		887		933		1 820	
ils and accessories (railways)	...	...	...		—		—		121		121	
tor-vehicle industry	...	...	178		—		178		58		236	
ipbuilding	...	16	2		—		18		5		23	
Total	...	...	...		215	10	1 083	49	1 117	51	2 200	100
1962												
dustries already existing in 1956	...	...	...		251		1 035		1 079		2 114	
ils and accessories (railways)	...	...	...		—		—		121		121	
otor-vehicle industry	...	...	193		—		193		63		256	
ipbuilding	...	39	6		—		45		13		58	
Total	...	...	...		251	10	1 273	50	1 276	50	2 549	100
1965												
dustries already existing in 1956	...	...	...		317		1 305		1 342		2 647	
ils and accessories (railways)	...	...	...		—		—		121		121	
otor-vehicle industry	...	...	228		—		228		75		303	
ipbuilding	...	39	6		—		45		13		58	
Total	...	...	950[c]	30	317	10	1 578	50	1 551	50	3 129	100

URCE: Information supplied to ECLA by the *Banco Nacional do Desenvolvimento Econômico*.

Unobtainable.

Including tubes.

ECLA estimate.

Table 14

BRAZIL: PRODUCTION, IMPORTS[a] AND APPARENT CONSUMPTION OF STEEL PRODUCTS

(*Thousands of tons*)

Year	*Steel ingot*						*Rolled products*						*Flat products*						*Other than flat products*					
	Production	*Percentage*	*Imports (Equivalent in terms of steel ingot) or exports*	*Percentage*	*Consumption*	*Percentage*	*Production*	*Percentage*	*Imports or exports*	*Percentage*	*Consumption*	*Percentage*	*Production*	*Percentage*	*Importation*	*Percentage*	*Consumption*	*Percentage*	*Production*	*Percentage*	*Imports or exports*	*Percentage*	*Consumption*	*Percentage*
1947	387	38	618	62	1 005	100	269	37	464	63	733	100	38	13	255	87	293	100	231	53	209	47	440	100
1948	483	62	299	38	782	100	381	67	191	33	572	100	125	52	115	48	240	100	256	77	76	23	332	100
1949	615	65	326	35	941	100	465	67	229	33	694	100	172	58	125	42	297	100	293	74	104	26	397	100
1950	789	69	353	31	1 142	100	572	68	268	32	840	100	197	60	129	40	326	100	375	73	139	27	514	100
1951	843	63	498	37	1 341	100	682	64	379	36	1 061	100	249	56	193	44	442	100	433	70	186	30	619	100
1952	893	64	497	36	1 390	100	703	66	364	34	1 067	100	269	56	212	44	481	100	434	74	152	26	586	100
1953	1 016	78	293	22	1 309	100	794	79	213	21	1 007	100	290	67	146	33	436	100	504	88	67	12	571	100
1954	1 148	58	833	42	1 981	100	834	57	642	43	1 476	100	314	51	300	49	614	100	520	60	342	40	862	100
1955	1 156	73	426	27	1 582	100	932	73	339	27	1 271	100	413	71	170	29	583	100	519	75	169	25	688	100
1956	1 337	82	300[b]	18	1 637	100	1 074	82	232	18	1 306	100	478	78	135	22	613	100	596	86	97	14	693	100
1957	1 470	83	300[b]	17	1 770	100	1 130	83	230[b]	17	1 360	100	504	79	130[b]	21	634	100	626	86	100[b]	14	726	100
1958	1 647						1 303						608						695					
Projections:																								
1960	2 206	76	694	24	2 900	100	1 679	76	521	24	2 200	100	806	74	277	26	1 083	100	873	78	244	22	1 117	100
1962	3 552	105	+ 152	+ 5	3 400	100	2 662	105	+ 113	+ 5	2 549	100	1 226	96	47	4	1 273	100	1 436	113	+ 160	+ 13	1 276	100
1965	4 297	105	+ 177	+ 5	4 120	100	3 265	105	+ 136	+ 5	3 129	100	1 571	99.5	7	0.5	1 578	100	1 697	109	+ 143	+ 9	1 551	100

Sources: Same as for table 11.

[a] Net imports, i.e., real imports minus exports.

[b] ECLA estimates.

ducts in Brazil from 1947 to 1957.[12] Consumption of s rose considerably and has come to represent 46 cent of total rolled products consumption in the last years, thereby exceeding the Western European pro- tion of 41 per cent and approaching that of the ted States, where the respective levels are 54 and 56 cent.

Every country now admits that there is a tendency consumption of flats to increase proportionately to t of other rolled products, according to the pace of nomic development. In the industrialized countries, s, while tinplate is utilized in the canning industry. . in the industries manufacturing durable household sumer goods —refrigerators, washing machines, elec- and gas cookers, etc.— and metal furniture for of- s, while tinplate is utilized in the canning industry. progress made during the last 20 years in the manu- ture of welded tubes leads to an ever-increasing con- ption of flats by that branch of industry. The rapid elopment of Brazil, and of its motor-vehicle industry particular, point to a substantial increment in both olute and relative consumption, similar to that of in- trialized countries.

The projections of consumption of rolled products ich have recently been made by the BNDE and are ex- essed in terms of rolled products in table 13 confirm foregoing hypothesis. It will be seen that total con- mption is estimated at 3 129 000 tons in 1965, divided ually between flats and non-flat products, a continua- n of the established trend.

The development of production

Production statistics for the Brazilian iron and steel lustry in 1947 (see table 14) show that the manu- ture of flats lagged behind that of other items. It was e to supply only 13 per cent of domestic consumption, ereas, in the same year, the output of non-flat prod- s reached 53 per cent. This was due to the previously ntioned fact that a country which is not highly in- strialized finds it much easier to produce shapes and rs at competitive prices for a small or medium-sized rket than flats, which require much larger scales of oduction, investment and markets.

The figures about to be analysed show that efforts ve been made in the right direction, to increase not ly aggregate steel production but also the manufacture flat products in relation to total output. In 1957, the lustry was able to meet 79 per cent of the demand for ts and 86 per cent of that for non-flat products (see ain table 14). Moreover, the total deficit in rolled oducts dropped from 464 000 tons, which ten years fore were imported in their entirety, to only 230 000 ns.

Plans for expansion up to 1965 denote a prolongation the same trends towards self-sufficiency. According table 14, production of flats in that year would suf- ce to cover demand and there might even be a pos- bility of exporting 143 000 tons of non-flat products.[13]

In order to attain this objective, more effort would have to be constructed in the future will consist of flats. These non-flat products. The entire output of the two big plants to be constructed in future will consist of flats. These plants —COSIPA and USIMINAS— have a respective capacity of 485 000 and 350 000 tons, expressed in terms of finished products. The *Companhia Siderurgica Nacional* and the *Companhia Siderurgica Belgo-Mineira* will also step up their manufacture of flat rolled products.

However, as short-term consumption is increasing more rapidly than production, it will be essential for imports to expand up to 1960, when there will probably be a deficit of 244 000 tons in respect of non-flat products and of 277 000 tons in respect of flats. By 1962, the industry could have an exportable surplus of non-flat products, although it would still be obliged to import 47 000 tons of flat rolled products.

Other possibilities of expansion already under study refer to the years after 1965. Production of ingot by the *Companhia Siderurgica Nacional* may rise to 2 million tons and that by COSIPA to 1 million and subsequently 2 million tons. In fact, the latter enterprise's semi-continuous wide-strip mill is intended to be converted into a fully continuous mill by the addition of other stands as demand increases. USIMINAS is also considering an expansion of its capacity in order to produce 2 million tons of ingot for rolling all kinds of flat and non-flat products. At a later stage, Brazil will doubtless become a large-scale exporter of iron and steel products.

3. *Colombia*

Table 15 gives the figures for apparent consumption of rolled steel products in Colombia in recent years. It may be noted that consumption reached 317 700 tons in 1956, but dropped sharply to 261 200 tons in 1957 and 170 100 tons in 1958, thus reflecting the economic crisis in Colombia. The data so far available for 1959 indicate that a recovery is setting in.

If the small output of the steel works at Medellín—a few thousands tons of bars—is disregarded, figures for apparent consumption corresponded exactly to those for imports up to 1954.

The Belencito plant belonging to *Acerías Paz del Río* then entered operation, with the result that from 1955 onwards, domestic production satisfied a large proportion of Colombia's consumption of products other than flats (bars, shapes, wire), as can be seen in table 16.

Colombian production attained its peak in 1957, with 125 000 tons (in terms of ingots), of which 115 000 were manufactured at Belencito and 10 000 at Medellín.

Nevertheless, it should be noted that Paz del Río's effective sales to the domestic market have always fallen far short of production, on account of the domestic crisis. The following statistics illustrate this problem:

Paz del Río	*Sales of finished products (Bars, shapes, wire) (Tons)*	*Output of finished products (Bars, shapes, wire) (Tons)*
1955	35 175	24 000
1956	72 409	60 000
1957	90 360	66 000
1958	88 073	53 000

---

[12] Analogous figures are given as a reference in annex II certain years in the United States and Western Europe.

[13] More conservative figures which do not allow for an ex- rtable surplus have been adopted for the conclusions in this dy (see section I) in an attempt to draw up a general balance- eet for the Latin American iron and steel economy.

Table 15

COLOMBIA: CONSUMPTION OF ROLLED STEEL PRODUCTS [a]

(Tons)

Year	Strip		Plate		Sheet		Tinplate		Total flat products (A+B+C+D)		Other than flat products [b]		Grand tota (E+F)	
	(A)	% A/H	(B)	% B/H	(C)	% C/H	(D)	% D/H	(E)	% E/H	(F)	% F/H	(H)	
1948	200	0.2	—		10 400	10.5	6 500	6.6	17 100	17.3	81 700	82.7	98 800	1
1949	500	0.5	—		11 200	10.2	4 400	4.0	16 100	14.7	94 100	85.3	110 200	1
1950	1 500	1.0	—		22 000	14.3	5 500	3.6	29 000	18.9	124 400	81.1	153 400	1
1951	1 000	0.9	1 500	1.3	18 900	16.3	7 200	6.2	28 600	24.7	87 400	75.3	116 000	1
1952	700	0.6	2 200	1.9	26 000	23.0	7 800	6.9	36 700	32.4	76 300	67.6	113 000	1
1953	1 100	0.5	3 000	1.4	46 800	21.7	9 800	4.5	60 700	28.1	155 200	71.9	215 900	1
1954	2 100	0.8	3 500	1.3	67 200	24.6	8 100	3.0	80 900	29.7	192 300	70.3	273 200	1
1955	2 200	0.9	3 500	1.4	59 100	23.1	13 400	5.2	78 200	30.6	177 600	69.4	255 800	1
1956	4 000	1.3	6 000	1.9	82 300	25.9	13 000	4.1	105 300	33.2	212 400	66.8	317 700	1
1957	3 900	1.5	3 700	1.4	44 300	17.0	20 100	7.7	72 000	27.6	189 200	72.4	261 200	1
1958	2 000	1.2	1 000	0.6	29 200	17.2	13 500	17.9	45 700	26.9	124 400	73.1	170 100	1

SOURCE: Data supplied by *Acerías Paz del Río.*

[a] Up to 1954 the figures for apparent consumption and for imports of rolled steel products are the same (if the small output of *Siderúrgica de Medellín* is dis garded); from 1955 onwards, with the entry into operation of the Paz del Río plant, domestic production covered a large proportion of Colombia's consumpt of bars, shapes and wire.

[b] Including steel tubing.

Owing to this anomaly, Belencito was for a long time saddled with large stocks of unsold products. The situation is now becoming more normal, thanks mainly to the fact that not long ago the national railways signed a contract with *Acerías Paz del Río* for the supply of 10 000 tons of rails. The enterprise has also been considering exporting small quantities to neighbouring countries. Steel will probably be sold to Costa Rica, Nicaragua, Panama, Puerto Rico and some of the ports on the Gulf of Mexico.

As flat products are not currently manufactured at Belencito, all requirements of this kind still have to be met with imports.

In 1955-56, a mission from the International Bank for Reconstruction and Development attempted to project the probable growth of demand for steel products in Colombia, taking into account past and present consumption of iron and steel products, the growth of the population, the over-all level of income, the rate of investment and the expansion of industry. This mission estimated that total demand would expand by some five per cent annually—a rate close to that considered possible for the growth of national income during the next few years. In making its computations, the mission bore in mind that in 1955, because imports were restricted by the foreign exchange shortage and the output of Paz del Río had fallen short of expectations, the supply steel (some 256 000 tons) had failed to match real d mand, which was estimated at 400 000 tons. The missi calculated that by 1965 domestic market requiremen would amount to about 660 000 tons of iron and ste products, or 65 per cent more than the correspondi estimate for 1955. Total demand would be distribute approximately as follows:

	Thousan of tons
Strip (including tubing)	100
Plate	42
Sheet	173
Tinplate	20
Total flat products	335
Other than flat products	325
Grand total	660

More recently (1958), the directors of *Acerías Paz d Río* requested a United States firm of consultants t make a complete study of the plant's financial and opera tional problems. This study was intended to provide basis for general recommendations as to the expansio of the works. The consultant's report contained a s ries of projections for average annual consumption o iron and steel products during the next five years. A can be seen from the following figures, these projection are considerably more conservative than those prepare by the IBRD.

	Poor year	Normal year	Goo yea
		(Tons)	
Strip (including tubing)	28 500	41 500	53 00
Plate	19 300	30 300	40 00
Sheet	27 250	51 850	72 20
Tinplate	10 000	16 000	21 00
Total flat products	85 050	139 650	186 20
Other than flat products	77 300	122 600	164 45
Grand total	162 350	262 250	350 65

Table 16

COLOMBIA: SOURCES OF SUPPLY OF ROLLED PRODUCTS OTHER THAN FLATS

(Thousands of tons)

Year	Imports	Paz del Río sales	Siderúrgica de Medellín	Total
1955	147	24	7	178
1956	142	60	10	212
1957	111	66	12	189
1958	65	53	6	124

SOURCE: Data supplied by *Acerías Paz del Río.*

he Bank's study was prepared at a time when the
omic situation was favourable, mainly owing to
igh price of coffee. Subsequently, as a result of the
in coffee prices, the situation radically altered, and
ections based on a normal rate of growth of national
me proved over-optimistic. On the other hand, the
ections of the United States consultants are con-
red too conservative. The most hopeful represents
nnual rate of growth of consumption of 4 per cent,
h is low if the following points are borne in mind:
efforts are being made to implement an import
titution programme, especially in respect of durable
umer goods;[14] and (*b*) from 1961 onwards Colom-
will be producing sheet, which will introduce a dy-
ic element into the development of the steel-consum-
industries.

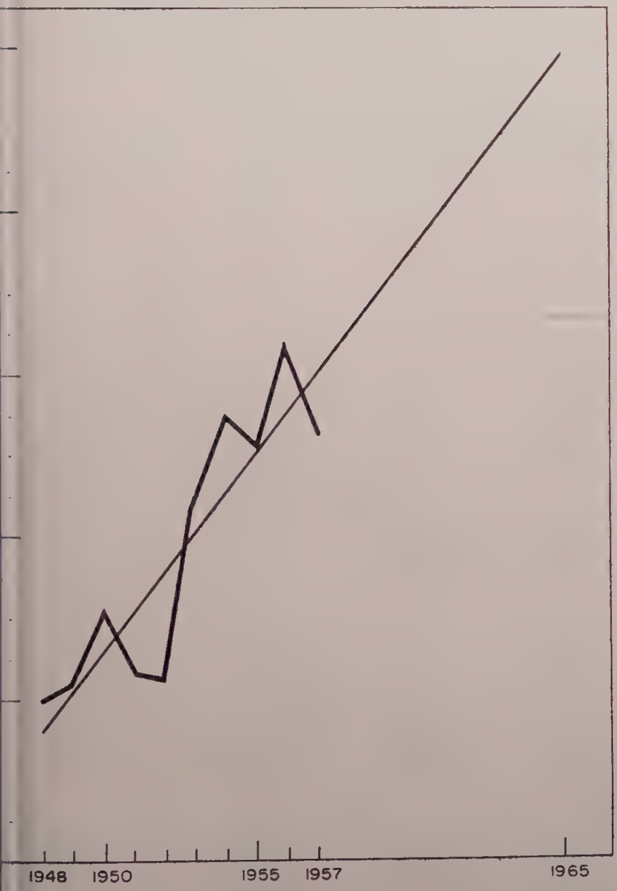
Hence, the projection chosen was one falling midway
een that of the Bank and that of the consultants (see figure III), and at the same time representative of the rectilinear growth trend registered by consumption over the last ten years under consideration (1948-57). The figure for 1965 given by this projection is 495 000 tons of rolled steel products, the distribution of which could be computed proportionally[15] to the Bank's calculation for the same date, as follows:

Figure III

LOMBIA: APPARENT CONSUMPTION OF ROLLED STEEL PRODUCTS 1948-57, AND PROJECTIONS FOR 1965

(Thousands of tons per year)

NATURAL SCALE



	Thousands of tons
Flat products	185
Other than flat products	310
Total	495

In order to meet future demand, *Acerías Paz del Río* has a project afoot for expanding production by supplementing its existing installations with a sintering plant, a better and larger output of coke, the addition of a turbo-blower for the blast furnace, and other equipment.

The expansion of output to about 300 000 tons of ingot annually[16] would permit the production of hot-rolled annealed and galvanized sheet and tinplate, for which there is a considerable demand on the Colombian market. Thus production of finished rolled steel products would be still further diversified, and distributed as follows:

	Thousands of tons
Flat products	108 600
Other than flat products	119 100
Grand total	227 700

For the manufacture of sheet, equipment already in existence at Huachipato will be purchased, since it will no longer be used in the Chilean plant because a modernized rolling system is being adopted. The rest of the financing of the expansion in question can be effected basically with the company's own resources. However, consideration is also being given to the possibility of loans from international sources.

Table 17 shows a probable balance sheet for Colombia's steel economy in 1965. To the figures mentioned some

Table 17

COLOMBIA: STEEL ECONOMY BALANCE-SHEET, 1957 AND 1965

(Thousands of tons)

	Rolled products	*Other than flat products*	*Flat products*
1957			
Output sold	78	78	—
Apparent consumption .	261	189	72
Deficit imported . . .	183	111	72
1965			
Output programmed . .	248	139	109
Probable demand . . .	495	310	185
Deficit to be imported.	247	171	76

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[4] Several large United States companies are in fact planning
stablish factories for refrigerators, electric fires, washing
nines, electric motors, transformers and other capital and
ble consumer goods.

[15] Tubing being grouped, however, with products other than flats, in line with the general method adopted in the study.

[16] From the Thomas converters, 278 000 tons, and from the electric furnace, 27 000.

20 000 tons are added, to allow for the output of the Medellín plant and other small enterprises.

As can be seen, there would still be a deficit, but the proportion of demand which could be satisfied by domestic production would have advanced from 30 to 50 per cent.

Financing difficulties are holding up the biggest expansion project, recommended in 1956 by the International Bank for Reconstruction and Development, and calculated to raise output to 374 000 tons of finished products yearly. This project would require the construction of a second blast furnace at Belencito, with a daily capacity of some 800 tons, as well as the enlargement of the coking, steel making and power plants. Its greatest advantage would lie in a significant reduction of production costs, with the consequent easing of the burden at present constituted by overheads for manufacture on an unduly small scale.

4. *Chile*

The development of Chile's consumption of iron and steel products in recent years is common knowledge, thanks to several studies carried out by the *Compañía de Acero del Pacífico, S. A.* (CAP).[17] The first part of tal 18 shows this development with respect to strip, pla sheet, tinplate and the group of rolled products oth than flats (bars, shapes and wire rod).

From 1945 to 1949 demand developed very slowly, in those years total annual consumption of finished prc ucts rose from approximately 100 000 tons only to 125 0 tons. After 1951, however, with the entry into operati of the Huachipato plant, Chilean consumption expand much more rapidly during the next five-year period, a by 1955 had reached 220 000 tons. These data indica the strong influence which is always exerted on a market by the existence of domestic production. (As w be seen later,[18] prior to 1950 almost all the steel co sumed in Chile was imported.)

Demand remained stagnant from 1955 onwards a even declined sharply in 1957, recovering slightly b not completely in 1958. However, as will be seen late there is no reason why this short-term trend, attributab to the economic crisis in Chile, should affect long-ter growth trends.

Table 18

CHILE: CONSUMPTION OF ROLLED STEEL PRODUCTS[a]

(Tons)

Year	Strip (A)	% A/H	Plate[b] (B)	% B/H	Sheet[c] (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (E)	% E/H	Other than flat products (F)	% F/H	Grand total (E+F) (H)	
I. *1945–58*														
1945	5 211	5	. . .		11 733	12	7 305	7	24 249	24	76 276	76	100 525	1
1946	4 142	4	. . .		12 752	13	4 874	5	21 768	22	75 660	78	97 428	1
1947	4 336	5	. . .		15 719	16	7 955	8	28 010	29	69 729	71	97 739	1
1948	4 120	4	. . .		19 401	17	11 838	11	35 359	32	76 838	68	112 197	1
1949	6 605	5	. . .		23 053	19	9 793	8	39 451	32	85 514	68	124 965	1
1950	6 712	6	. . .		21 865	19	9 254	8	37 831	33	76 630	67	114 461	1
1951	7 622	5	. . .		30 155	21	13 348	9	51 125	35	93 189	65	144 314	1
1952	9 529	5	. . .		44 356	24	16 719	9	70 604	38	115 902	62	186 506	1
1953	8 846	5	. . .		33 266	21	13 625	8	55 737	34	107 572	66	163 309	1
1954	11 523	6	23 609	11	30 615	14	18 238	9	83 985	40	123 508	60	207 493	1
1955	13 163	6	22 024	10	41 202	19	17 723	8	94 112	43	125 189	57	219 301	1
1956	10 416	5	24 331	11	36 118	16	20 079	9	90 944	41	128 200	59	219 144	1
1957	8 112	4	36 311	19	31 188	16	15 795	8	91 406	47	102 852	53	194 258	1
1958	8 128	4	37 523	18	29 438	14	18 086	9	93 175	45	112 227	55	205 402	1
II. *Estimates of future demand, 1955–60 (prepared by* CAP *in 1955)*														
1955	13 296	6	. . .		60 200[e]	28	18 180	9	91 676	43	123 500	57	215 176	1
1956	13 300	5	. . .		70 000[e]	29	21 000	9	104 300	43	136 800	57	241 100	1
1957	14 800	5	. . .		81 200[e]	31	21 000	8	117 000	44	147 100	56	264 100	1
1958	18 700	6	. . .		94 000[e]	32	25 200	9	137 900	47	158 500	53	296 400	1
1959	20 600	6	. . .		108 800[e]	33	28 700	9	158 100	48	171 200	52	329 300	1
1960	22 700	6	. . .		125 800[e]	34	34 500	9	183 000	50	185 000	50	368 000	1
III. *Estimates of future demand, 1963–65 (prepared by* CAP *and* ECLA *in 1959)*														
1963[f]	21 000	6	60 000	16	77 000	21	30 000	8	188 000	51	180 000	49	368 000	1
1965[g]					92 000	23			212 000	53	188 000	47	400 000	1

SOURCE: Statistics provided by the *Compañía de Acero del Pacífico S. A.* (CAP) and Customs Department (*Superintendencia de Aduanas de Chile*).
a Current figures for apparent consumption calculated as the sum of imports plus deliveries from Chilean plants to the domestic market.
b Incorporated in figures for sheet up to 1953 inclusive, as no separate data were available.
c Including plate up to 1953.
d Bars, shapes and wire rod.
e Including plate.
f CAP estimates.
g Extrapolated by ECLA.

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[17] See especially *Estudio del mercado nacional de produc siderúrgicos terminados*, Santiago, Chile, December 1955.

[18] See paragraph (a) and table 19 below.

ble 18 shows that consumption developed very diftly for the different types of products. While contion of flats almost quadrupled between 1945 and , rising from 24 000 to 94 000 tons *per annum*, that ore current products—bars, shapes and wire rod—nded by less than 65 per cent, from 76 000 tons to oximately 125 000. In 1954-58, consumption of flat ucts represented from 40 to 45 per cent of Chile's steel consumption, as against only 24 per cent in . Over the same period, consumption of bars, shapes wire rod fell from 76 to 55-60 per cent.

is is yet another indication that consumption of tends to increase much more rapidly than that of steel products.

e second part of table 18 presents the estimates emand for the various finished products prepared AP in 1955. The estimates for 1955, 1956, 1957 and are not of course identical with the figures actualgistered; but the discrepancies, which must be asd to the unfavourable conditions prevailing in the an economy, do not necessarily mean that long-term asts must be modified. According to CAP's most reevaluation (made early in 1959),[19] the level of nd previously forecast for 1960—368 000 tons—d be reached in 1963, although the proportions esponding to the different types of finished products d alter somewhat (see the third part of table 18). would support the conclusion that Chile's consumpof finished steels, which climbed from 100 000 tons 45 to 200 000 in 1955, might rise as high as 400 000 by 1965.

extrapolation, demand in 1965 would then amount 8 000 tons of products other than flats and 212 000 of flat products. Of the latter, sheet would account 2 000 tons.

(a) *Imports of iron and steel*

Table 19 shows Chile's imports of iron and steel products from 1945 to 1958. It is of interest to note the fall in such imports after 1950, when the Huachipato plant entered into operation. A comparison of this table with table 18 will show that imports, which in 1945 covered almost 70 per cent of Chilean consumption, in recent years satisfied less than 10 per cent, this proportion being made up of small quantities of high-quality non-current steels.

(b) *Production and exports of iron and steel*

Table 20 gives detailed statistics of production at Huachipato since its establishment. In line with the dictates of demand, output of flat rolled products has expanded much more rapidly than that of other articles. It should be noted that while Huachipato alone manufactures flats, about 20 000 tons of bars and shapes, produced by various small plants, must also be taken into account in computing Chile's total production in recent years.

According to these figures, iron and steel production is at present sufficient to cover Chile's requirements in the aggregate, since it exceeds consumption in almost every aspect. A large proportion of Huachipato's production capacity is therefore devoted to manufacture for export, by which means CAP has been enabled to maintain output at a high level despite the economic crisis in Chile and the contractions in domestic consumption. It can be seen from table 20 that in recent years exports have represented from 25 to 50 per cent of the sales effected by CAP.

Tables 21 and 22 indicate that almost all the Latin American countries are now purchasers of Chilean steel, Argentina being the leading buyer. Shipments to Canada, Japan, the United Kingdom and the United States

Table 19

CHILE: IMPORTS OF ROLLED STEEL PRODUCTS

(Tons)

ear	*Strip* (A)	*Plate* [a] (B)	*Sheet* [b] (C)	*Tinplate* (D)	*Total flat products (A+B+C+D)* (E)	*Other than flat products* [c] (F)	*Grand total (E+F)* (H)
. . . .	1 015	. . .	11 733	7 305	20 053	49 262	69 315
. . . .	2 023	. . .	12 752	4 874	19 649	45 690	65 339
. . . .	1 889	. . .	15 719	7 955	25 563	35 966	61 529
. . . .	1 505	. . .	19 401	11 838	32 744	32 897	65 641
. . . .	2 426	. . .	23 053	9 793	35 272	42 888	78 160
. . . .	2 563	. . .	9 975	3 612	16 150	43 524	59 674
. . . .	1 851	. . .	4 488	1 534	7 873	21 501	29 374
. . . .	2 209	. . .	9 582	2 003	13 794	18 873	32 667
. . . .	829	. . .	7 225	653	8 707	20 597	29 304
. . . .	810	. . .	3 503	—	4 313	10 394	14 707
. . . .	1 049	1 349	2 017	21	4 436	16 398	20 834
. . . .	1 015	1 144	3 067	792	6 018	14 156	20 174
. . . .	974	1 578	2 639	241	5 432	14 314	19 746
H. . . .	1 000	1 600	2 600	200	5 400	14 000	19 400

: Compañía de Acero del Pacífico, S. A.
rporated in figures for sheet up to 1954 inclusive, as no separate data were available.
uding plate up to 1954.
, shapes and wire rod.
nate.

Data supplied by CAP directly to the ECLA secretariat.

Table 20

CHILE: OUTPUT OF THE COMPAÑÍA DE ACERO DEL PACÍFICO

(Tons)

																	Sales of steel products					
Year	Steel in- gots a (Z)	Per- cent- age Z/H	Strip (A)	Per- cent- age A/H	Plate (B)	Per- cent- age B/H	Sheet (C)	Per- cent- age C/H	Tin- plate (D)	Per- cent- age D/H	Total flat prod- ucts (A+B +C+ D) (E)	Per- cent- age E/H	Other than flat prod- ucts b (F)	Per- cent- age F/H	Grand total (Out- put of finish- ed rol- led prod- ucts) (E+F) (H)	Per- cent- age	Total (K+L) (J)	Per- cent- age	To domes- tic mar- ket (K)	Per- cent- age K/J	To exter- nal mar- ket (L)	Per- cent- age L/J
1951	178 318	141	6 079	5	19 316	15	20 330	16	11 944	10	57 669	46	68 634	54	126 303	100	122 357	100	100 213	82	22 324	18
1952	242 591	134	6 179	3	28 626	16	33 694	19	15 999	9	84 498	47	96 558	53	181 056	100	166 672	100	136 557	82	30 115	18
1953	313 068	156	8 269	4	37 275	18	45 999	23	15 209	8	106 752	53	93 996	47	200 748	100	209 854	100	121 061	58	88 793	42
1954	320 949	145	11 338	5	36 093	17	41 904	19	18 030	8	107 365	49	113 402	51	220 767	100	218 557	100	163 867	75	54 690	25
1955	289 755	133	12 316	6	31 917	15	49 875	23	17 780	8	111 888	52	105 223	48	217 111	100	218 778	100	175 900	80	42 878	20
1956	381 059	142	14 432	5	50 147	19	60 930	23	20 021	7	145 530	54	122 485	46	268 015	100	255 210	100	180 609	71	74 601	29
1957	388 216	154	8 574	3	51 419	20	62 191	25	16 366	7	138 550	55	112 914	45	251 464	100	284 116	100	153 001	54	131 115	46
1958	348 476	164	7 833	4	42 010	20	53 602	25	16 748	8	120 193	57	91 498	43	211 691	100	270 167	100	164 261	61	105 906	39
1960	430 000	132	21 000	6	60 000	19	70 950	22	30 000	9	181 950	56	145 000	44	326 950	100						
1964 d	650 000	149	21 000	5	60 000	14	179 460	41	30 000	7	290 460	67	145 000	33	435 460	100						

SOURCE: *Compañía de Acero del Pacífico, S. A.*

a It is considered that the proportion of ingots to finished rolled products produced must be maintained at about 133 per cent. Higher percentages prior to 1955 are due to the necessity in some cases of increasing stocks of ingots in order to keep the finishing-mills in operation when the blooming-mill was out of action to allow new equipment to be installed. In 1957 and 1958, the higher percentages are explained by the sale of part of the output in the form of semi-finished products (see, in particular, note c).

b Bars, shapes, wire rod, etc.

c Including pig iron, and semi-finished products. It must be noted that in 1957 and 1958 sales of semi-finished products to Argentina amounted to 32 000 and 50 000 tons respectively, which accounts for the fact that total deliveries from the plant exceeded its output of finished rolled products.

d In addition to the figures for finished rolled products given in the table, manufacture of 81 214 tons of semi-finished products, mainly for export, is planned for 1964.

Table 21

CHILE: EXPORTS EFFECTED BY THE COMPAÑIA *DE* ACERO DEL PACIFICO, BY MARKETS OF DESTINATION

Country	1956		1957		1958	
	Tons	Percentage	Tons	Percentage	Tons	Percentage
tina.	19 570	26	49 101	37	81 165	77
a	2 281	3	1 234	1	—	—
	1 176	2	7 744	6	1 486	1
ıbia.	6 261	8	2 089	2	1 306	1
Rica	—	—	1 132	1	545	1
	1 638	2	5 860	4	2 985	3
ior.	1 192	2	4 148	3	—	—
agua.	—	—	112	—	313	—
na.	15	—	1 584	1	126	—
	5 343	7	16 040	12	4 575	4
ıay.	3 226	4	4 136	3	—	—
uela.	—	—	4 811	4	6 971	7
tal for Latin America	*40 702*	*54*	*97 991*	*74*	*99 472*	*94*
da.	14 811	20	5 932	5	189	—
ld States	14 767	20	15 393	12	6 245	6
	2 164	3	11 799	9	—	—
Britain	2 157	3	—	—	—	—
nd total.	*74 601*	*100*	*131 115*	*100*	*105 906*	*100*

: Compañia de Acero del Paciifco, S. A.

be regarded as occasional. Most of the exports to entina consist of plate, sheet and semi-finished prod- for rerolling.

Expansion of the Huachipato plant

AP is enlarging its plant to satisfy the increase in rnal demand and maintain exportable surpluses. Un- the programme mapped out, the second stage of expansion should be completed by 1960 with the luction possibilities indicated in table 20, i.e.:

	Tons	
ingots	430 000	
ip		21 000
ate		60 000
eet.		70 950
nplate		30 000
Total flat products		181 950
Other than flat products		145 000
Total finished rolled products		326 950

n the course of a third stage of expansion, CAP would e its output by 1964 to the following figures:

	Tons	
Steel ingots	650 000	
Strip		21 000
Plate		60 000
Sheet.		179 460
Tinplate		30 000
Total flat products		290 460
Other than flat products		145 000
Total finished rolled products		435 460
Semi-finished products.		81 240

The advance from the second stage (1960) to the third (1964) would therefore consist in an expansion of production of steel ingots, thin sheet, and semi-finished products to be sold for rerolling. It would call for the installation of a second blast furnace, increased facilities for the maintenance of raw materials, 39 new coking furnaces, some additional reheating furnaces and certain alterations to the steam generator.

It is important to stress, however, that the transition from the second to the third stage would not entail any fundamental expansion of the steel making plant and recently installed rolling equipment, which are already ade-

Table 22

CHILE: EXPORTS EFFECTED BY THE COMPAÑIA DE ACERO DEL PACIFICO, BY DIFFERENT TYPES OF PRODUCTS

Product	1956		1957		1958	
	Tons	Percentage of CAP output	Tons	Percentage of CAP output	Tons	Percentage of CAP output
e	25 219	52	17 858	34	9 631	21
t	22 665	41	33 923	54	28 674	52
otal flat products	47 884	33	51 781	37	38 305	32
er than flat products.	21 952	18	47 081	39	17 240	18
i-finished products.	4 765	75	32 253	94	50 361	88
rand total	*74 601*	29	*131 115*	46	*105 906*	39

: Compañia de Acero del Paciifco, S. A.

quate to absorb the additional production from the second blast furnace and achieve the output visualized for 1964.

The steel making plant comprises three open hearth furnaces of 100 tons each and one of 200 tons, which would work on the Duplex system using two Bessemer converters. The rolling equipment consists of a blooming-mill for blooms and slabs to feed a rolling-mill for bars and shapes and another for plate. This latter in its turn feeds a hot reversing rolling-mill (Steckel) for the manufacture of sheet, which is finished by cold rolling in a three-stand continuous mill.

Table 23 presents a balance sheet for Chile's steel economy in about 1963-64. The figures for 1957 are given for reference purposes. From a comparison of the estimates of future supply and demand, it can be seen that approximately by 1963-64 Chile might be completely self-sufficient in respect of all types of flats, and furthermore, might be in a position to export 100 000 tons of sheet and 69 000 tons of semi-finished products for rerolling. These volumes might help to reduce the deficit in other Latin American countries. At the same time, Chile's imports would be confined to some 10 000 tons of bars and shapes, of a very special type, which it would probably be uneconomic to manufacture in the small quantities needed for the local market.

However, unless further expansions were undertaken, this 1963-64 level of exports would be destined to decline rapidly. For example, if the 1965 figures are compared with those for 1963-64, it will be seen that the balance is less favourable to exports, because of the growth of internal demand (see again table 23 and table 24).

The increase in Chilean demand and the stabilization of output between 1963-64 and 1965 would produce the following results:

(*a*) Import requirements in respect of bars and shapes would rise from 10 000 to 18 000 tons;
(*b*) Export possibilities for flat products would fall from 102 000 to 78 000 tons;
(*c*) Export of semi-finished products for rerolling would remain stable at 69 000 tons.

There can thus be no doubt that the balance of Chile's steel economy, so positive in 1963-64, will become less favourable from 1965 onwards, unless provision is made for further expansion programmes.

Table 23

CHILE: STEEL ECONOMY BALANCE SHEET, 1957 AND 1963–64

(Thousands of tons)

	Rolled products (E+F) *(H)*	*Other than flat products* *(F)*	*F pr u (E*
1957 [a]			
CAP output	251	113	1
Output of other enterprises	23	23	
Total production	274	*136*	1
Apparent consumption	194	103	
Imports	19	14	
Exports	99	47	
Net surplus exported (+)	+ 80	+ 33	+
1963/64 [b]			
CAP output (1964)	435	145	2
Output of other enterprises	25	25	
Total production programmed	460	*170*	2
Probable demand (1963)	368	180	1
Imports	10	10	
Exports	102	—	1
Net deficit to be imported (—) or net exportable surplus (+)	+ 92	— *10*	+1

SOURCE: Preceding text and tables.

[a] In addition, in *1957* CAP produced about *34 000 tons* of *semi-finished pro* for rerolling, *of which*: 2 000 tons were for the domestic market; 32 000 were for export to Argentina.

[b] In addition, in *1963-64* CAP is planning to produce about *81 000 tons of* *finished products* for rerolling, *of which*: 12 000 tons will be for the dom market; 69 000 tons will be for export.

5. *Mexico*

Mexico's iron and steel industry—second in importance in Latin America to that of Brazil—has produced over 1 million tons of ingots in recent years. Its out should be 2.6 million tons by 1965, and, like Brazil's expected to supply the national demand.

(*a*) *Development of iron and steel economy*

The rate of growth of steel consumption in Mexico —along with that registered in Brazil—the highest Latin America (see table 25). In 1958, consumpt attained a figure equivalent to 1 000 000 tons of ing As regards rolled products, however, the proportion the total represented by flats has increased very slov since it had reached 30 per cent by 1958, when in Arg tina it was 40 and Brazil 46 per cent (see table 26). though at first sight this relation would seem to sugg that the metal transforming industries are under-devel ed, what it really means is that construction activities Mexico, which are characterized by the widespread use

Table 24

CHILE: STEEL ECONOMY BALANCE SHEET, 1965

(Thousands of tons)

	Finished rolled products	*Other than flat products*	*Flat products*	*Semi-finisl products rerollin*
Production programmed	460	170	290	81 000
Probable demand	400	188	212	12 000
Net deficit to be imported (—) or net exportable surplus (+)	+ 60	— *18*	+ 78	+69 000

SOURCE: Preceding text and tables.

Table 25

ICO: PRODUCTION, IMPORTS AND APPARENT CONSUMPTION OF CRUDE STEEL

(Thousands of tons)

ear	Steel ingots a domestic production (A)	Steel ingots b Imports (B)	Finished products c Imports (C)	Total apparent consumption of crude steel (A+B+C) (D)
. . . .	144	—	139	283
. . . .	149	1	152	302
. . . .	144	1	167	312
. . . .	173	4	126	303
. . . .	166	1	191	358
. . . .	175	(— 4) d	365	536
. . . .	230	2	348	580
. . . .	258	—	422	680
. . . .	290	(—11) d	470	749
. . . .	291	3	283	577
. . . .	371	6	277	654
. . . .	390	16	382	788
1	467	10	593	1 070
2	533	14	465	1 012
3	525	5	376	906
4	610	29	291	930
5	725	54	360	1 139
. . . .	888	56	546	1 490
7	1 050	127	482	1 659
8	1 115	96	403	1 614

CE: Data supplied to ECLA by *Altos Hornos de México, S. A.*

cluding only steel ingots for rolling.

et imports of ingots (including free zones) minus exports. Steel ingots, pig on and steel alloy ingots are taken into account.

et imports of finished products (excluding scrap and ingots) minus exports; nverted into ingots at a rate of 1.33 tons of ingots per ton of finished oduct.

et exports.

products other than flats in steel structures, also made great strides. At the present time, Mexico consumes 1 300 000 tons of rolled products, of which 398 000 tons are flats.

The case of production is the opposite of that of consumption, since the relatively slow growth trend registered in the last decade but one turned into a process of vigorous development in the ten years just ended, despite certain obstacles which there will later be an opportunity of analysing (see tables 26 and 27).

Mexico has devoted particular attention to the manufacture of flats. This line of production, which was only just being embarked upon in 1941, by 1944 already accounted for 13 per cent of total output of rolled products, and in recent years has remained at a level somewhere between 40 and 45 per cent. *Altos Hornos de México* is almost the only enterprise making plate. It also manufactures a large proportion of the sheet produced in Mexico, the rest being supplied by *Hojalata y Lámina, S. A.* and by *Herramientas México, S. A.*

Since 1950, Mexico's iron and steel industry has been affected by the following two unfavourable factors: (*a*) the shortage of coking coal and coke; and (*b*) internal transport difficulties which in some cases, especially in frontier areas, make it easy to obtain supplies of metallurgical products from United States sources. In recent years the combined action of these two factors has prevented domestic enterprises from working at full capacity and has brought into being a steel casting and rolling industry using imported scrap from the United States.[20]

The following data (in thousands of tons) show the relation between capacity for production of ingots and current production:

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[20] According to the 1958 annual report of the *Nacional Financiera*, imports of scrap amounted to 257 000 tons in 1956 and 264 000 in 1957.

Table 26

MEXICO: CONSUMPTION OF ROLLED STEEL PRODUCTS

(Tons)

Year	Strip (A)	% A/H	Plate (B)	% B/H	Sheet (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (A+B+C+D) (E)	% E/H	Other than flat products (F)	% F/H	Grand total	%
4	. . .		38 878	9	55 011	13	17 381	4	111 270	26	323 176	74	434 446	100
45	. . .		71 746	15	36 473	8	18 463	4	126 682	27	343 105	73	469 787	100
46	. . .		85 960	16	45 794	8	16 599	3	148 353	27	402 326	73	550 679	100
47	. . .		68 715	11	53 959	9	27 254	4	149 928	24	458 286	76	608 214	100
48	. . .		53 904	12	65 536	14	20 383	4	139 823	30	326 165	70	465 988	100
49	. . .		56 255	11	74 221	14	27 874	5	158 350	30	354 459	70	512 809	100
50	. . .		51 281	8	89 973	14	31 728	5	172 982	27	464 952	73	637 934	100
51	. . .		56 512	6	108 841	13	34 340	4	199 693	23	670 324	77	870 017	100
52	. . .		62 577	8	101 438	12	35 599	4	199 614	24	622 017	76	821 631	100
53	. . .		66 544	9	94 218	13	42 024	6	202 786	28	530 004	72	732 790	100
54	. . .		72 752	10	133 299	18	46 522	6	252 573	34	494 984	66	747 557	100
55	. . .		81 598	9	162 410	18	53 828	6	297 836	33	619 002	67	916 838	100
56	26 592 b	2	81 389	7	233 324	19	72 553	6	413 858	34	783 253	66	1 197 111	100
57	31 665 b	2	104 267	8	237 441	18	48 713	4	422 086	32	914 628	68	1 336 714	100
58	35 643 b	3	97 338	7	196 052	15	69 023	5	398 056	30	903 495	70	1 301 551	100

RCE: Department of Economic Studies, *Altos Hornos de México, S. A.*

Apparent consumption comprises production plus imports (including free zones) minus exports.

Skelp.

Year	Production capacity	Current production
1955	1 038	725
1956	1 133	888
1957	1 303	1 050
1958	1 378	1 115

But the impossibility of working at full capacity has not prevented Mexico from developing its production media in the last few years. The situation has now been eased by the installation of the new coking plant at Monclova and the contribution of the sponge-iron plant recently brought into operation by the *Compañía Hojalata* *Lámina, S. A.*

Thus, Mexico is still compelled to import a large p of the rolled products it requires (see table 28). Nevertl less, as can be seen in table 29, an increasing proporti of consumption is covered by production. In 1958, fell to 91 per cent for flats, 58 per cent for products o er than flats and 68 per cent in the aggregate. In the ca of sheet and plate the corresponding proportions exce 95 per cent.

Table 27

MEXICO: PRODUCTION OF ROLLED STEEL PRODUCTS

(Tons)

Year	Strip (A)	% A/H	Plate (B)	% B/H	Sheet (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (A+B+C+D) (E)	% E/H	Other than flat products (F)	% F/H	Grand total (H)
1944	...		4 002	3	14 773	10	—		18 775	13	124 829	87	143 604
1945	...		32 648	18	20 598	11	—		53 246	29	132 647	71	185 893
1946	...		38 170	18	31 298	15	2 373	1	71 841	34	135 592	66	207 433
1947	...		46 227	20	45 688	20	1 641	1	93 556	41	138 533	59	232 089
1948	...		41 130	18	54 153	23	3 501	1	98 784	42	133 249	58	232 033
1949	...		40 588	14	63 300	21	9 063	3	112 951	38	183 703	62	296 654
1950	...		36 424	12	78 202	25	11 785	4	126 411	41	185 191	59	311 602
1951	...		39 329	11	92 040	25	13 671	4	145 040	40	228 150	60	373 190
1952	...		50 869	12	91 832	21	13 015	3	155 716	36	271 824	64	427 540
1953	...		57 653	14	85 923	20	19 180	5	162 756	39	257 137	61	419 893
1954	...		63 620	13	131 704	27	24 334	5	219 658	45	264 421	55	484 079
1955	...		72 898	13	159 203	28	24 516	4	256 617	45	320 041	55	576 658
1956	16 669 b	2	75 879	11	187 865	27	29 854	4	310 267	44	396 464	56	706 731
1957	23 594 b	3	97 848	12	218 969	26	33 268	4	373 679	45	460 394	55	834 073
1958	28 139 b	3	92 279	10	189 602	21	53 843	6	363 863	40	525 885	60	889 748

SOURCE: Department of Economic Studies, *Altos Hornos de México, S. A.*
a Excluding production of deformed concrete-reinforcing bar, which is manufactured from rails and axles scrap, both imported and from domestic sources.
b Skelp.

Table 28

MEXICO: IMPORTS OF ROLLED STEEL PRODUCTS

(Tons)

Year	Strip (A)	% A/H	Plate (B)	% B/H	Sheet (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (A+B+C+D) (E)	% E/H	Other than flat products (F)	% F/H	Grand total (H)
1944	...		34 876	12	40 238	14	17 381	6	92 495	32	198 347	68	290 842
1945	...		39 098	14	15 875	6	18 463	7	73 436	27	210 458	73	283 894
1946	...		47 790	14	14 496	4	14 226	4	76 512	22	266 734	78	343 246
1947	...		22 488	6	8 271	2	25 613	7	56 372	15	319 753	85	376 125
1948	...		12 774	5	11 383	5	16 882	7	41 039	17	192 916	83	233 955
1949	...		15 667	7	10 921	5	18 811	9	45 399	21	170 756	79	216 155
1950	...		14 857	5	11 771	4	19 943	6	46 571	15	279 761	85	326 332
1951	...		17 183	3	16 801	3	20 669	4	54 653	10	442 174	90	496 827
1952	...		11 708	3	9 606	2	22 584	6	43 898	11	350 193	89	394 091
1953	...		8 891	3	8 295	3	22 844	7	40 030	13	272 867	87	312 897
1954	...		9 132	3	1 595	1	22 188	8	32 915	12	230 563	88	263 478
1955	...		8 700	3	3 207	1	29 312	9	41 219	13	298 961	87	340 180
1956	9 923	2	5 510	1	45 459	9	42 699	9	103 591	21	386 789	79	490 380
1957	8 071	2	6 419	1	18 472	4	15 445	3	48 407	10	454 234	90	502 641
1958	7 504	2	5 059	1	6 450	2	15 180	4	34 193	9	377 610	91	411 803

SOURCE: Tables 26 and 27.

Table 29

MEXICO: RELATION BETWEEN PRODUCTION AND CONSUMPTION OF ROLLED STEEL PRODUCTS

(Percentages)

Year	Strip	Plate	Sheet	Tinplate	Total flat products	Other than flat products	Grand total
. . . .	...	87	91	46	80	49	57
. . . .	...	87	99	52	87	53	65
. . . .	...	89	98	46	86	52	63
. . . .	63	93	81	41	75	51	59
. . . .	75	94	92	68	88	50	62
. . . .	79	95	97	78	91	58	68

E: Tables 26 and 27.

Projections of demand and production

In 1957, ECLA [21] estimated future demand for iron and l products by a method which consisted essentially in jecting demand on the part of consumer sectors (the al transforming industry, the construction sector, tin- e production and railways). The result of these cal- tions was that demand might reach 1.9 million tons olled products by 1965, or 2.5 million tons in terms of ots.

Iore recently (in 1959), another projection of future nand was presented in a document prepared by *Altos rnos de México, S. A.* for the meeting at Santiago, le, in which the annual increment in *per capita* steel sumption was adopted as a base, and in which it is nted out that "*per capita* consumption averaged 25 grammes in 1944 and 1945, and followed an upward nd until it reached 50 kilogrammes in the last three rs (1956-58)... from 1944 to 1958 the average incre- nt registered was 1.8 kilogrammes and from 1950 to 58 2.4 kilogrammes. On this basis, by 1965 apparent *capita* consumption would be 62.5 and 66.7 kilo- mmes respectively. Apparent consumption of steel ots would be 2.5 million tons in the first case and 2.7 lion tons in the second".[22]

Thus, for the purposes of the present study, 2.6 mil- n tons of ingots was adopted as an average figure for mand in 1965, which would imply demand for 2 mil- n tons of finished rolled products.

In line with the trend shown by development in other ntries, a possible hypothesis would be that in 1965 t products might represent 40 per cent of total con- nption, which would suggest that of the 2 million tons erred to, 800 000 would be flat products and 1 200 000 oducts other than flats.

No precise information is available on the expansion grammes of Mexico's iron and steel industry. How- er, in view of the projects in course of execution,[23] it believed that by 1965, Mexico will probably have the llowing installed capacity:

	Thousands of tons of ingots	
Capacity for steel production in open hearth furnaces	1 800	
Of which: Altos Hornos de México, S. A.		1 000
Compañía Fundidora de Fierro y Acero de Monterrey .		600
Other enterprises.		200
Capacity for steel production in electric furnaces (several enterprises)	800	
Total steel making capacity	2 600	

According to table 25, Mexico's total output of steel ingots amounted to 1 050 000 tons in 1957 and 1 115 000 tons in 1958. Of these, in 1957 *Altos Hornos de México* produced 335 000 tons and the *Compañía Fundidora de Fierro y Acero de Monterrey* 211 000 tons.

A steel making capacity of 2.6 million tons in 1965 might well mean an output of 2 million tons of rolled products. Half of these (1 millions tons) might be products other than flats, and the other half flat products.

Where flat products are concerned, it is particularly noteworthy that to the already large output of *Altos Hornos de México* and of *Hojalata y Lámina* will be added the production of a new enterprise—*Aceros Planos de Monterrey, S. A.*—a subsidiary of the *Compañía Fundidora de Fierro y Acero de Monterrey*. This establishment will have a semi-continuous rolling mill, which will probably be used to begin with to manufacture at least 250 000 tons of sheet and plate, with a view to an ultimate output of 500 000 tons, if this is warranted by the demand situation.

A comparison of the projections of demand for 1965 with known development programmes suggests the likelihood of a surplus of 200 000 tons in respect of flat rolled products and a deficit of the same size in the case of products other than flats. Probably, however, Mexico's iron and steel industry will employ some degree of flexibility in readjusting its production, and will manage to satisfy demand without the emergence of a significant deficit or surplus in either direction.

Lastly, it is worth noting that interest is still being displayed in the development of the iron and steel industry in the Pacific area with a view to utilizing the iron ore available in several deposits.

6. *Peru*

Table 30 shows apparent consumption of rolled steel products in Peru, including the output of the Chimbote steel works (*Siderúrgica de Chimbote*) which began production at the end of 1957, using imported ingots. In

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[21] See *External disequilibrium in the economic development Latin America: The case of Mexico* (E/CN.12/428/Add.1), l. II, chapter IV.

[22] Marcelo Aramburu Díaz, *Consideraciones sobre el mercado xicano de productos de hierro y acero.*

[23] The information is based on data supplied to ECLA by the partment of Economic Studies of *Altos Hornos de México, S. A.*

Table 30

PERU: CONSUMPTION OF ROLLED STEEL PRODUCTS[a]

(Tons)

Year	Strip (A)	% A/H	Plate (B)	% B/H	Sheet (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (A+B+C+D) (E)	% E/H	Other than flat products (F)	% F/H	Grand total (E+F) (H)
1950	424	0.7	3 639	6.1	4 581	7.7	3 176	5.4	11 820	20.0	47 610	80.0	59 430
1951	954	1.0	6 463	6.6	8 076	8.2	4 636	4.7	20 129	20.5	77 910	79.5	98 039
1952	1 414	1.6	6 389	7.3	7 491	8.6	4 864	5.5	20 158	23.0	67 340	77.0	87 498
1953	2 479	2.1	6 182	5.3	9 249	7.9	6 329	5.4	24 239	20.7	93 005	79.3	117 244
1954	2 933	3.5	6 947	8.2	10 468	12.3	8 673	10.2	29 021	34.2	55 778	65.8	84 799
1955	1 762	1.7	6 823	6.5	10 902	10.3	8 230	7.8	27 717	26.3	77 621	73.7	105 338
1956	1 530	1.1	9 131	6.4	15 223	10.7	11 842	8.4	37 726	26.6	104 137	73.4	141 863
1957	2 527	2.0	9 941	8.0	17 122	13.9	10 225	8.3	39 815	32.2	83 862	67.8	123 677
1958	4 048	4.0	6 185	6.1	13 994	13.7	10 092	9.9	34 319	33.7	67 612	66.3	101 931

SOURCE: Data supplied by the *Corporación Peruana del Santa;* and *Anuarios de Comercio Exterior del Perú.*

a Including the output of the Siderúrgica de Chimbote, i.e.:

	1957	*1958*
Bars and wire rod	2 715	21 480
Black plate.	1 479	2 500
Galvanized sheet	95	1 500

April 1958, the other departments of this integrated mill entered operation and since then it has been producing its own steel.

Hence, it is clear that consumption increased, although unevenly, from almost 60 000 tons in 1950 to over 140 000 in 1956. Subsequently, in 1958, it decreased to 100 000 tons, owing to balance-of-payments difficulties.

In its study on the industrial development of Peru,[24] the ECLA secretariat prepared a projection for the Peruvian economy up to 1965, 1955 being taken as the base year. When the possibilities for the development of the metal transforming industry were evaluated in terms of probable production at the date mentioned, estimates were also prepared of the volumes of raw materials—cast-iron, flats, bars and shapes, tubing, wire, etc.—which the industry in question would require in order to attain the hypothetical targets. These materials, which the iron and steel industry would have to supply to meet the needs of the metal transforming industries, were taken in combination with the requirements of other direct consumers of iron and steel products, such as railways, the construction sector and the petroleum industry. In brief, the conclusion was reached that by 1965 total annual requirements would have risen to about 21 000 tons of cast iron and 191 000 tons of rolled products. A breakdown of the latter by types of products would work out as follows:

	Tons
Tinplate.	15 850
Plate	9 000
Sheet	38 426
Total flat products	63 276
Rails	9 800
Rod for construction	59 000
Other bars, shapes and wire rod . .	48 167
Seamless tubing.	10 500
Total other than flat products . .	127 467
Total rolled products	190 743

To increase the Peruvian economy's steel supplies wi
out such intensive recourse to foreign exchange disbur
ments, the decision was taken to intall a steel works
the coast at Chimbote, 460 kilometers north of Lima. T
plant was inaugurated in April 1958, and seems likely
be working at full capacity within a very short time.[25] T
project comprises an integrated mill, with two electric
ducing furnaces (Tysland-Hole type, 15 000 kW each
two electric steel making furnaces and two rolling-mil
one for bars and shapes and the other for thin flats. T
annual capacity planned for the Chimbote works is 66 5
tons of ingots, or, in other words, 55 000 tons of roll
products, divided into 35 000 tons of miscellaneous ba
and shapes, 5 000 tons of wire rod and 16 000 tons
sheet.

The ECLA document referred to expresses the opini
that before 1965, with relatively moderate investment, r
ling capacity for flat products could be doubled, i.e., ra
ed from 15 000 to 30 000 tons. Thus, an output of 15 8
tons of tinplate and 14 150 tons of sheet would ultimate
be obtained. Expansions would consist mainly in the a
dition of a finishing mill, an electric reducing furna
and an electric furnace for steel making. Furthermore,
part of the sheet for consumption by the metal transfor
ing industry should be suitable for deep drawing, it m
perhaps be necessary to add a thermic treatment unit f
normalization. Domestic production of tinplate, the i
portance of which lies in the fact that it would help
lower the cost of containers for the tinned fish export
by Peru, would also call for the installation of tinni
equipment of the immersion type, which is the be
adapted to relatively small volumes of production ar

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[24] See *The industrial development of Peru* (E/CN.12/493), United Nations publication, Sales No. 59.II.G.2.

[25] According to information recently received from the *Sid
rúrgica de Chimbote,* the estimated peak production was attained
June 1959. The following exports were effected during the year:
Argentina, 6 000 tons of pig iron, 700 tons of sheet and 1 500 to
of billet; to the United States, 2 000 tons of bars for constructi
purposes; and to Ecuador, 300 tons of bars, also for constructio

:es it possible to meet the specifications for the high-lity sheet required by the food preserving industry. 'urthermore, to judge from programmes for 1960-61, supply of steel available will be sufficient for the ing of some 35 000 tons of bars and shapes at Chim-e. But the incorporation, before 1965, of the electric ucing furnace and the electric furnace for steel making ıtioned above would permit the manufacture of up to 000 tons of bars and shapes. The following could be en as a probable break-down of the *Siderúrgica de ːmbote's* 1965 production:

		Tons
:l ingots	106 400	
'inplate		15 850
heet		14 150
'otal flat products		30 000
)ther than flat products (bars, shapes, etc.)		50 000
'otal rolled products		80 000

To complete Peruvian production in 1965, a new small ni-integrated mill should be installed, using scrap and ctric energy and capable of producing about 20 000 ıs of bars and shapes for construction. This project ːuld consist of an electric installation for melting scrap d a small rolling-mill, mainly for bars, which might be ıated in the Lima-Callao area, this being the principal ırce of scrap and the biggest market for bars for cons-ıction and small shapes. It is known that this area ll have enough electric energy at its disposal in the ture for a development of this kind.

It is believed that a plant of this type can compete on vourable terms with the large integrated mills in turn-g out products which, because of their small weight per ıit of length and given the low prices they fetch, it is t economic to produce in integrated works where heav-: and higher-priced steels can be manufactured.

The situation in Peru is summed up in table 31, which esents a balance sheet for rolled steel products in 1965, ıth reference to consumption in 1957.

The *Corporación de Santa,* however, is of the opinion ıat ECLA's projections are conservative and that de-ıand will be on a larger scale. Consequently, the Cor-ɔration is studying a project for considerably expand-g the production capacity of its Chimbote plant. This ːoject would seem to be awaiting financing.

Table 31

ERU: STEEL ECONOMY BALANCE SHEET, 1957 AND 1965

(Thousands of tons)

	Rolled products	*Other than flat products*	*Flat products*
957			
Production	4	3	1
Apparent consumption	124	84	40
Deficit imported	120	81	39
965			
Probable production	100	70	30
Probable demand	190	127	63
Deficit to be imported	90	57	33

OURCE: Preceding text and table.

The additions would consist in a coking-plant and blast furnace for 900 tons daily, which would raise annual output of pig iron to 370 000 tons; and a steel making plant with converters for 340 000 tons; which, together with the existing installation, would permit the production of 410 000 tons of steel ingots. A breakdown of the rolled products manufactured would be as follows:

	Thousands of tons
Tinplate	30
Plate and sheet	78
Total flat products	108
Bars and shapes	120
Rails and steel structures	30
Wire rod	17
Seamless tubing	45
Welded tubing	10
Steel alloys for the mining industry	10
Total other than flat products	232
Grand total	340

7. *Venezuela*

The characteristics of the market for iron and steel products are not the same in Venezuela as in other countries, owing to the highly-developed state of the petroleum industry and the extremely favourable position as regards foreign exchange for imports of these materials. The influence of this latter factor can be seen in the rapidly rising trend registered for consumption of the various items. In contrast with the situation in other countries, where a curtailment of steel consumption is often rendered imperative by foreign exchange shortages, no obstacles of this kind have stood in the way of the expansion of demand in Venezuela.

Table 32 shows consumption of iron and steel products in recent years. If the year 1957, in which the level reached by consumption was exceptional,[26] is disregarded, the series displays very steady increments and a marked acceleration of the growth rate.

The 1950 consumption figure of 224 000 tons had become 835 000 tons by 1958, or, in other words, consumption was quadrupled over a term of nine years. In no other Latin American country was a similar development registered. It was influenced not only by the petroleum industry but also by Venezuela's industrialization process.

Almost the whole of consumption is covered with imported materials, since domestic output is on a very small scale and is produced by a semi-integrated mill (SIVENSA), with modern installations consisting of electric furnaces and rolling-mills for the production of bars, in which the local scrap used is supplemented by imported scrap and billet. As can be seen in table 32 above, output stood at 10 000 tons in 1952 and reached 54 000 tons in 1957.

Figure IV reflects the trend followed by consumption of rolled steel products. It was decided that in determining this, consumption of tubing and that of other rolled products should be taken separately. What is more, with the aim of giving a more exact idea of this trend, the year 1957, because of its obviously exceptional nature,

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[26] The figure registered was almost double the preceding year's owing to heavier investment in the petroleum industry.

Table 32

VENEZUELA: CONSUMPTION OF ROLLED STEEL PRODUCTS [a]

(Tons)

Year	Strip (A)	% A/H	Plate (B)	% B/H	Sheet (C)	% C/H	Tin-plate (D)	% D/H	Total flat products (A+B+C+D) (E)	% E/H	Other than flat products (F)	% F/H	Tubing (G)	% G/H	Grand total (H)	%
1950	...		7 188	3.2	9 095	4.1	2 527	1.1	18 810	8.4	105 879	47.3	99 101	44.3	223 790	100
1951	...		8 964	2.0	8 290	1.9	4 469	1.0	21 453	4.9	174 385	39.3	247 222	55.8	443 060	100
1952	...		12 204	2.8	9 670	2.2	4 493	1.0	26 367	6.0	146 404	33.1	269 046	60.9	441 817	100
1953	...		13 006	2.9	16 336	3.7	6 045	1.3	35 387	7.9	201 583	45.2	209 430	46.9	446 400	100
1954	...		12 359	2.5	27 151	5.5	10 740	2.2	50 250	10.2	251 386	51.3	188 211	38.4	489 848	100
1955	...		13 975	2.4	23 019	3.9	10 931	1.8	47 925	8.1	242 456	41.2	297 760	59.0	588 141	100
1956	...		29 764	3.7	35 009	4.3	13 547	1.7	78 320	9.7	292 681	36.0	441 088	54.3	812 089	100
1957	...		61 038	4.0	39 964	2.6	30 760	2.0	131 762	8.7	494 886	32.8	883 480	58.5	1 510 129	100
1958	...		44 817	5.4	41 801	5.0	18 768	2.2	105 386	12.6	355 477	42.6	374 137	44.8	835 000	100

Source: Data supplied by the *Instituto Venezolano de Hierro y Acero.*

a No data available.

b Including strip.

c Of which, SIVENSA output: 1952 = 10 220; 1953 = 16 401;
1954 = 15 915; 1955 = 20 346;
1956 = 34 251; 1957 = 54 289;
1958 = 40 306.

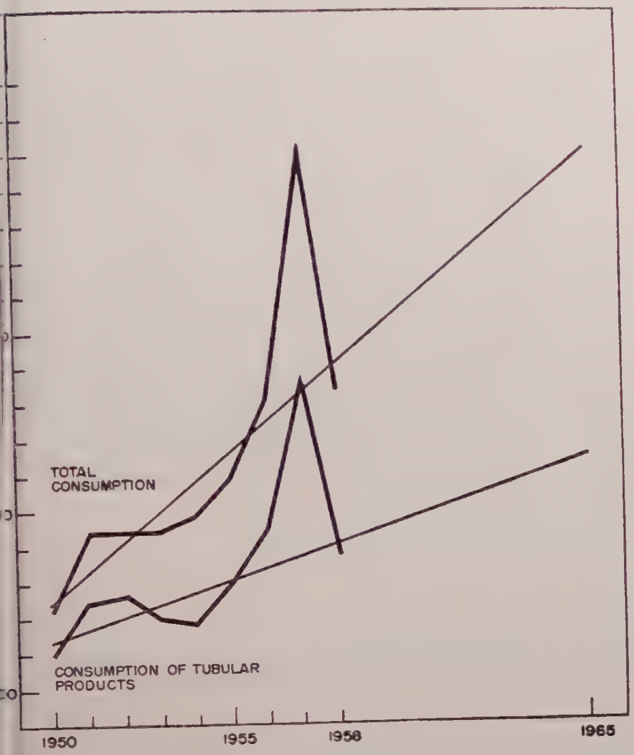
excluded from the series for tubing. For the other ducts, on the other hand, moving 3-year averages, inling 1957, were taken, because it was considered that e imports were warehoused and did not immediately h the hands of consumers.

Figure IV

NEZUELA: APPARENT CONSUMPTION OF STEEL PRODUCTS 1950-58, AND PROJECTIONS FOR 1965

(Thousands of tons per year)

NATURAL SCALE



Greater uniformity in the petroleum industry and the ner industrial sectors would warrant the supposition that mand might well follow a trend representing a projecn of the straight lines shown in figure IV. In this ent, by 1965 consumption would amount to 1 500 000 ns, of which some 650 000 tons would be tubing and 0 000 tons would be other rolled steel products.

If tubing is excluded, it will be seen that the share of ats in total consumption of rolled products is steadily creasing. Between 1950 and 1958 it ranged from 15 to per cent. This index must necessarily rise as the delopment of the sheet and plate consuming sectors of dustry is intensified. The rate of growth contemplated therefore one which would enable the same proporon as was estimated for Colombia (35 per cent) to be tained by 1965. Thus, in that year consumption of on-tubular rolled products might be broken down into 97 000 tons of flat products and 553 000 tons of nonats.

To meet the growing demand for steel, the Government Venezuela is constructing an integrated iron and steel orks situated at the confluence of the rivers Orinoco nd Caroní, near the iron ore deposits. The choice of is site was influenced by the possibility of utilizing electric energy from the Caroní hydro-electric power station. The iron ore would thus be reduced in electric furnaces, which require plenty of low-priced electric energy.

The steel works is expected to enter operation in 1961, and, unless unforeseen difficulties arise, by 1965 it might be producing 750 000 tons of ingots, on which the following programme for the manufacture of finished products could be based:

	Thousands of tons
Steel tubing	295
Bars, shapes and rails	200.5
Wire	54.5
Total rolled products	550
Pig iron tubing.	30
Castings.	20
Grand total	600

It is important to note that the programme does not include manufacture of flat products. The integrated plant for tubing and products other than flats would be the largest in Latin America.

The main equipment will comprise a coking plant; 9 Tysland-Hole electric reducing furnaces, each with a daily capacity of 200 tons of pig iron; a steel mill with four 250-ton open hearth furnaces; a plant for the manufacture of tubes; rolling-mills for the manufacture of large and medium bars, shapes, rails and steel structures; a small mill for bars, shapes and wire rod; and a wiredrawing shop for the manufacture of wire of various types.

In addition to the integrated Caroní works and the semi-integrated SIVENA mill, another semi-integrated plant is being constructed at Maracaibo for some 40 000 tons of bars yearly, which may raise the output of the semi-integrated mills to an annual volume of 100 000 tons.

The foregoing data served as a basis for the preparation of table 33, which offers a balance sheet for rolled steel products in 1965.

Plans are afoot for a second stage in the expansión of the Caroní plant which would raise its output of steel ingots to 1.2 million tons. A large proportion of the

Table 33

VENEZUELA: STEEL ECONOMY BALANCE SHEET, 1958–65

(Thousands of tons)

	Other than flat products	*Flat products*	Tubing
1958 [a]			
Production.	40	—	—
Apparent consumption. . .	355	105	375
Deficit imported	315	105	375
1965			
Production programmed . .	355	—	295
Probable demand	553	297	650
Deficit to be imported .	198	297	355

SOURCE: Preceding text and table.

[a] The year 1958 was taken as a point of reference because 1957 was not a normal year for consumption in Venezuela.

additional capacity would then be used for the manufacture of flats.

8. *Other Latin American countries*

For want of data, it is very difficult to evaluate correctly the size of the market in the other Latin American countries which produce little or no iron and steel. In round figures, these countries' imports of rolled steel products in 1957 were in the neighbourhood of 750 000 tons.[27] On the assumption that, just as in most of the other countries studied in the present report, their market for steel products may be doubled in the next 7 to 10 years, by about 1965 it might be able to absorb up to 1.5 million tons of finished products, of which—to judge from precedents in other under-developed countries—70 per cent (1 050 000 tons) would be products other than flats and the other 30 per cent (450 000 tons) flat products.

With respect to production prospects, it should be pointed out that the first steel mill in *Central America*, an electric plant, entered operation in the capital of *El Salvador* during the second half of 1958. It produces steels for construction and has an annual capacity of 2 500 tons, with which it satisfies approximately one-third of El Salvador's current requirements. In *Guatemala* arrangements are being made for the establishment of a steel foundry using coal and manganese.

Panama's new steel mill, situated in the capital and manufacturing steel rod and other construction materials, also entered operation in August 1958. The plant comprises an electric arc furnace and a rolling-mill and uses steel scrap. Its production programme visualizes the man ufacture of 8 000 tons of finished products in the firs year, 10 000 in the second and 20 000 from the third yea onwards. Tariff protection for these articles was established at the end of 1958. The new plant is planning t export to Central America in the near future.

In *Cuba*, work proceeded in 1958 on the execution o the new project of the *Compañía Antillana de Acero* Its plant—a steel works and rolling-mill with a capacit of 112 000 tons—is being set up near Havana and wil manufacture rod, shapes, wire and welded tubing.

In the case of *Ecuador*, too, some prospects are bein opened up for the development of these industries. According to the findings of studies carried out by foreig companies in their concession areas on the coast, it "black sand" constitutes a metalliferous deposit suitabl for reduction and manufacture of synthetic scrap ("semi steel") by means of a new procedure.[28] The promoter of the steel making project consider that the relativel low investment required for the construction of a plan with a rotating furnace and an electric arc furnace wil enable the project to be carried out shortly.

In *Uruguay*, the discovery of iron deposits at Cerr Mulero—not at present satisfactorily situated—has als given rise to plans for the creation of an integrated mill

If the preceding data are taken in the aggregate, i seems that the total output of the countries mentione could not, by 1965, exceed 200 000 tons, almost all o which would consist of products other than flats. Th remainder of the requirements mentioned would have t be satisfied with imports.

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[27] See Economic Commission for Europe, *STEEL*/Working paper No. 207/Add.2, Geneva, 27 February 1959 (table 15).

[28] The procedure referred to is known as "*Strategic-Udy*."

Annex I

DEFINITION OF THE TECHNICAL TERMS MOST COMMONLY USED IN THIS STUDY

There is so great a lack in Latin America of precise definitions for iron and steel products that the Latin American Meeting of Experts on the Iron and Steel Making and Transforming Industries (São Paulo, Brazil, 15-28 October 1956) felt it necessary to recommend that "the Economic Commission for Latin America should prepare a project for rationalizing and standardizing rolled steel products, with a view to its official adoption by all Latin American countries."

As this work of standardization has not yet been carried out for lack of resources, the technical standards and definitions referred to in the present study are those most commonly used in North America and Western Europe.

Flat products are taken to mean plate (including universal plates), sheet of all types and sizes, coated (including tinplate, galvanized sheet and terne plate) and uncoated, strip, wide strip and black plate.

Heavy flats are as a rule *plate* with a thickness of 5 millimetres or more. In some European statistics, however, plate more than 3 millimetres thick is classified among heavy flats.

Thin flat products are those less than 5 millimetres thick (o less than 3 millimetres in the European cases noted above).

Sheet means thin flats more than 500 millimetres wide (300 millimetres in North America) and short enough (2 to 3 metres at the most) to be transported uncoiled. However, *wide strip*, which comes in lengths requiring coiling for transport, is classified together with sheet in the statistics. *Strip and narrow strip* means thin flats less than 500 millimetres wide (300 millimetres in the United States in lengths which may or may not require coiling for transport. A large proportion of the strip produced is now used in the manufacture of tubing.

Cold-rolled sheet and wide strip are thin flats which have been cold-rolled after hot-rolling. Coated sheets, such as *tinplate, terne plate* and *galvanized sheet*, also fall within this category.

Products other than flats cover all other types of hot or cold-rolled products (bars, structural shapes, rails and wire).

The lack of precision in statistics makes it it difficult to classify tubing (welded or seamless) in any of the preceding groups. In this study, therefore, it is included with products other than flats, except where otherwise indicated.

Annex II

TRENDS IN CONSUMPTION OF IRON AND STEEL PRODUCTS IN THE UNITED STATES AND WESTERN EUROPE

Steel consumption in the United States has developed very rapidly since the beginning of the twentieth century, and has become an index of the country's economic progress. As can be seen in table I, consumption of rolled steel products increased from 22 million tons in 1913 to 75 millions in 1956.

This increment was not the same for all types of products, in the case of flats the rate of expansion was much higher in that of other types of rolled products. In 1956, flats sented 54.4 per cent of total consumption of rolled products ainst only 28.6 per cent in 1913 (see again table I). In ute terms, this means that consumption of flat products in United States rose from 6 million tons in 1913 to 41 million 956. The largest consumption of flats was registered in when it accounted for 56.1 per cent of total consumption lled products, representing nearly 43 million tons in absolute es.

f the flat products, plate is used mainly in the capital ; and heavy industries and in the construction sector, as as in dockyards. Tinplate is utilized in the food canning industry. But it was consumption of sheet that increased most intensively, climbing from 7.6 per cent of total consumption of rolled products in 1913 to 37.6 per cent in 1955. It is also worth while to note that consumption of sheet accounted for almost 66 per cent of total consumption of flat products in 1956 (67 per cent in 1955).

The heavy consumption of sheet in the United States is directly linked to the high standard of living of consumers, as this product is mainly used in the motor-vehicle industry, and in the manufacture of refrigerators, electric and gas cooking-stoves, washing-machines, metal furniture and closets, and other household and office appliances. However, the absolute and relative expansion of sheet production is due not only to the spectacular

Table I

UNITED STATES: CONSUMPTION OF ROLLED STEEL PRODUCTS [a]

Year	*Percentage of total rolled products*						*Grand total*		*Sheet as a percentage of total flat products*
	Strip	Plate	Sheet	Tin-plate	Total flat products (A+B+C +D)	Total other than flat products	Percent-age (E+F)	Thou-sands of tons	I = % C/E
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
. . . .	4.5	12.9	7.6	3.6	28.6	71.4	100	21 697	26.6
. . . .	5.9	11.8	13.4	4.8	35.9	64.1	100	31 394	37.3
. . . .	7.8	12.7	13.5	4.5	38.5	61.5	100	38 589	35.1
. . . .	10.3	7.2	22.3	6.7	46.5	53.5	100	32 258	48.0
. . . .	9.1	8.2	22.9	6.9	47.1	52.9	100	34 062	48.6
. . . .	5.4	7.5	27.4	7.8	48.1	51.9	100	18 984	57.0
. . . .	4.9	8.9	31.5	6.6	51.9	48.1	100	64 116	60.7
. . . .	4.7	11.5	29.7	5.6	51.5	48.5	100	71 408	57.7
. . . .	4.2	11.6	29.2	6.1	51.1	48.9	100	59 242	57.1
. . . .	4.2	10.6	32.9	6.0	53.7	46.3	100	73 969	61.3
. . . .	3.5	8.8	34.4	7.3	54.0	46.0	100	58 245	63.7
. . . .	4.0	8.6	37.6	5.9	56.1	43.9	100	76 205	67.0
. . . .	2.9	10.0	35.8	5.7	54.4	45.6	100	75 449	65.8

ce: Secretariat of the Economic Commission for Europe, Steel/Working Paper No. 192/Add.1, 5 May 1958.

is table includes only those quantities of the products used as such; quantities used for conversion into another product shown in the table have been deducted.

rs, shapes, wire and wire rod, tubing, rails, etc

Table II

WESTERN EUROPE: [a] CONSUMPTION OF ROLLED STEEL PRODUCTS [b]

Year	*Percentage of total rolled products*						*Grand total*		*Sheet as a percentage of total flat products*
	Strip	Plate	Sheet	Tin-plate	Total flat products (A+B+C +D)	Total other than flat products	Percent-age (E+F)	Thou-sands of tons	I = % C/E
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
3	3.5	13.2	5.3	2.3	24.3	75.7	100	21 915	21.8
5	2.6	13.4	7.1	2.8	25.9	74.1	100	23 145	27.4
9	2.5	14.9	8.3	2.8	28.5	71.5	100	28 650	29.1
6	5.0	14.6	10.5	3.6	33.7	66.3	100	28 556	31.2
7	5.1	15.9	10.4	3.5	34.9	65.1	100	31 426	29.8
8	4.2	17.3	9.3	2.8	33.6	66.4	100	30 074	27.7
0	5.3	16.0	11.6	3.5	36.4	63.6	100	31 511	31.9
1	5.8	16.6	12.7	3.3	38.4	61.6	100	35 260	33.1
2	5.5	17.4	12.6	3.1	38.6	61.4	100	40 743	32.6
3	4.9	19.9	11.5	3.3	39.6	60.4	100	38 235	29.0
4	5.8	17.3	14.3	3.4	40.8	59.2	100	42 542	35.0
5	5.6	16.8	15.3	3.3	41.0	59.0	100	50 438	37.3
6	5.2	18.7	13.4	3.2	40.5	59.5	100	52 561	33.1

rce: Secretariat of the Economic Commission for Europe, Steel/Working Paper No. 192/Add.1, 5 May 1958.

ustria, Belgium and Luxembourg, Denmark, Federal Republic of Germany, Finland, France and the Saar, Greece, Ireland, Italy, Netherlands, Norway, Portugal, pain, Sweden, Switzerland, Turkey, United Kingdom and Yugoslavia.

This table includes only those quantities of the products used as such; quantities used for conversion into another product shown in the table have been deducted.

ars, shapes, wire and wire rod, tubing, rails, etc.

development of the motor-vehicle and household-appliance industries, but also—and this is equally true of the increase in plate production—to the fact that in some branches of the metal transforming industry, as well as in the construction and petroleum sectors, it is possible to economize on consumption of metal by substituting flat products for forgings, castings and structural shapes.

As less use was made of durable consumer goods—motor-vehicles and household appliances—in Western Europe up to recent years, consumption of flat products developed less than in the United States. However, it increased from 24.3 per cent of total consumption of rolled products in 1913 to 40.5 per cent in 1956; that is, in absolute figures, from 5.3 million tons in the former to 21.3 million in the latter year (see table II).

At the same time, consumption of sheet in Western Europe progressed from 5.3 per cent of total consumption of rolled products to 13.4 per cent, that is, from 1.2 million tons in 1913 to 7 million tons in 1956, in absolute figures (7.7 million tons in 1955). Nevertheless, consumption of sheet in Western Europe did not account for more than 33 per cent of total consumption of flat products in 1956, as against the 66 per cent registered in the United States.

The spectacular development of consumption of all rolled steel products in the more industrialized countries has been stimulated by the large-scale introduction of semi-continuous and continuous rolling-mills for strip, sheet, bars, wire, etc. The same trend exists with respect to tinplate and other similar finished products, including welded tubing and galvanized sheet. Before the Secon World War there were only two continuous wide-strip mills i Western Europe. Now there are 14. In the United States at th present time there are 38, which manufacture over 80 per cer of all the flats produced. Some examples of the advantages c this type of equipment are given in the ECLA documents.[1] - seems, however, that continuous or semi-continuous rolling cal for much heavier investment in the case of flat products tha in that of products other than flats, a fact which has importar implications for those countries whose iron and steel industry i in its initial stages and has limited capital resources.

This tendency to adopt the semi-continuous rolling process i combined with the growing world importance of integrated iro and steel works. For example, in 1958 the Soviet Union produce only 38 per cent of the total output of pig iron in plants with a annual capacity of more than a million tons. In 1955, this percent age reached 77. In the United States, too, the proportion of stee produced in plants with a similar capacity increased, from 66 pe cent in 1945 to 78 per cent in 1955. The same trend can b observed in all the other major producers of iron and steel.

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[1] See W. F. Cartwright and M. F. Dowling, *The developmen of flat rolling in a growing economy* (ST/ECLA/CONF.4/ L.A III.3), a document presented to the Latin American Meeting o Experts on Steel Making and Transforming Industries.

[2] See Economic Commission for Europe, *STEEL*/Workin Paper No. 192/Add.3, 13 May 1958, page 13.

NTRAL AMERICAN ECONOMIC INTEGRATION PROGRAMME: EVALUATION AND PROSPECTS[1]

I. Origin and formation of the programme

he origin of the Central American Economic Integra- Programme is to be found in resolution 9 (IV) of Economic Commission for Latin America adopted uly 1951. In that resolution, the Central American ernments expressed their interest in promoting the gration of their economies and their desire to set up ommittee on economic co-operation for that purpose. Committee was constituted at Tegucigalpa, Honduras, August 1952.[2] It consists of the Ministers for Eco- nic Affairs of the Central American countries as *ex- cio* members and other ministers of State which the ernments concerned wish to accredit. The Republic Panama was invited to join the Committee, and its ister of Finance and the Treasury attended the sixth ion, held at San José, Costa Rica. At the request the Government of Panama, it was agreed at that ion that Panama should participate without reserva- in all future activities of the Committee as if it were ady a full member.

The Programme was not launched according to an blished plan that made successive provision for all stages. But two circumstances have conferred upon continuity of purpose and a clear-cut line of action ch have characterized its work. In the first place, e of the fundamentals of the Programme were al- ly contained in resolution 9 (IV), in which the ernments of Costa Rica, El Salvador, Guatemala, nduras and Nicaragua expressed their intention of eloping their productive sectors and transport systems as to promote the integration of their economies; expanding their markets beyond their national bound- s through trade; of co-ordinating their development grammes and of establishing enterprises in which all some of the Central American countries had an inter- In the second place, at its first session (August 2), the Committee, besides adopting its own rules of procedure which established it as a permanent ECLA body, laid down many of the basic principles and objectives for Central American economic integration. From the outset, it was made clear that the programme was to be carried out gradually, progressively and on a reciprocal and equitable basis to the mutual benefit of the five participating countries. The Committee advocated the co-ordination of activities at the regional level in order to avoid duplication of investment and ensure its maximum utilization in such fields as financing, electric energy, transport, technical training and technological research. A list of activities was drawn up in connexion with the Economic Integration Programme and a request was made in respect of the list that "concrete projects be formulated, envisaging the establishment of new industries and the improvement and rationalization of those already in existence...".[3]

Upon this initial framework of principles and objectives the Committee, at its successive sessions, has gradually shaped the Economic Integration Programme. Its studies and activities culminated in June 1958 in the signing by the five Central American Governments of the treaties of Tegucigalpa, Honduras, supplemented, in September 1959, by the signing at San José of the Central American Agreement on the Equalization of Import Duties and Charges and of a protocol on a Central American preferential tariff, which bring the Central American common market into force. Thus, while eschewing the inflexibility of a pre-conceived plan—which in any case could hardly have been formulated for lack of the necessary experience and data—the Programme has maintained a marked unity of purpose and action, which has enabled a wide variety of activities to be carried out as part of a co-ordinated and well-defined policy.

Now that the formative stage of the Programme has been completed and most of the machinery for the economic integration of Central America has been set up, the time has come to act and to prepare more far-reaching and perhaps more detailed plans for the future. At the same time, the integration Programme must retain those elements of flexibility and gradual improvement which have given it its dynamic character and enabled it to adapt each phase of its evolution to the particular needs of the moment.

The following pages are based on the report (E/CN.12/CCE/ which the secretariat submitted to the Central American nomic Co-operation Committee at its sixth session (San José, a Rica, August 1959). The text of the report was revised and ght up to date for the preparation of this article.

On that occasion it had before it the following documents ared by the secretariat: *Informe preliminar sobre integración ciprocidad económicas en Centroamérica* (E/CN.12/AC.17/3); *gración económica y cooperación tecnológica* (E/CN.12/AC.); *Unificación de nomenclaturas arancelarias* (E/CN.12/ 17/5); and *Los transportes en Centroamérica* (E/CN.12/AC.).

[3] See resolution 2 (AC.17).

II. Bases and objectives

The Central American Economic Integration Pro- mme is essentially a concerted international effort ed at the removal of the main obstacles which prevent the accelerated economic development of five separate tiny countries which are largely dependent for their growth on stimuli received from the world economy. At the same time, it is an effort to achieve the maximum rate of economic growth compatible with their resources by putting the latter to the best possible use and securing the greatest yield from investments.

For this purpose, it was and still is necessary to pierce the confining walls of national and local markets, so inadequate for the maintenance of a solid industrial structure, to ensure highly capital-intensive investment in basic sectors and to promote technical improvements in the crop and livestock sector which is a vital part of the over-all economy. The rapid rate of population growth, which is one of the highest in the world (3 per cent per year), makes it even more urgent to give a strong boost to industrialization which, on the whole, is at the embryonic stage in all the Central American countries. Given their limited capital resources and the slow rate of capital formation, it is essential to co-ordinate investments and achieve a degree of specialization and division of labour in the five countries which should transcend the level attained so far as a result partly of the natural play of economic forces and partly of the influence of bilateral free-trade agreements.

Furthermore, the pooling of efforts and the deliberate enlargement of the basic economic structure to comprise the whole of Central America will provide a means of demolishing the main barriers to economic development. With its total area of 440 865 square kilometres and its eight million inhabitants (in 1950), Central America embraces some countries and areas suffering from over-population and hidden unemployment and others which are relatively under-populated. Both these phenomena show at once that the Central American countries cannot develop individually in such a way as to absorb their surplus population and achieve the most rational use of their resources.

The low level of income generated (175 dollars *per capita* in 1950) also reflects the lack of investment capital, techniques and markets. Although, as a result of external stimuli, the income level has risen almost without interruption for quite some time, it is obvious that, in the long run, the progress which each country might achieve on its own is bound to be limited and in any case less than what could be achieved by joint action. Closer co-operation in financial, technological and educational matters as well as in the production sectors themselves is an immediate need. Integration does not only involve the formal expansion of markets; it must als be accompanied by a series of joint efforts in the field of transport, energy, technical training and the modernization of production methods which have to be exercised simultaneously in order to create those productiv activities which nurture free trade. In other words, integration should be based on the general improvemen of economic efficiency as a whole and not merely o the development of certain sectors. This explains wh the Programme has attained its present scope and imparts significance to the achievements in a large numbe of different fields.

Viewed from a broader angle, the Programme ma also be considered as an attempt to co-ordinate and supplement the economic development of the five Centra American countries as a joint undertaking. Such a vie presupposes that each country has formulated its national development plans as a co-ordinated whole, tha a high degree of co-ordination in the matter of economi policy will be gradually evolved, and that an economi infrastructure covering the whole region will be progressively built up. The co-ordination of plans and programmes will not mean that the tempo of developmen in the different countries will be subordinated to plan for the area as a whole nor that national projects wi be superseded by regional schemes, but merely tha activities in the various sectors will be concerted at th international level so that public and private investments are made in the right form and the right tim thus affording their maximum possible yield.

It is in response to these needs and in fulfilment o these objectives that the Programme has, under the auspices of ECLA, taken on a personality of its own. Thi article outlines each of the Programme's main sector as well as their contribution to and importance for it over-all objectives. It also analyses the progress achieve in the period 1952-59, and the work which, in the secretariat's opinion, should be carried out in the nex five years. Certain essential activities have been omitte from the proposed plan on the grounds that they coul be undertaken by other bodies or national organization No attempt has been made to draw up an annotated lis of future projects, but simply to indicate the genera lines that should be taken by different phases of th Programme. This over-all policy has often been illustrated by specific projects.

III. PRESENT WORK PROGRAMME AND PROPOSED ACTIVITIES IN 1959-64

During its first seven years of activity, the Central American Economic Co-operation Committee has undertaken and executed a large number of projects in various fields of study. They may be divided into two groups: (*a*) activities designed to constitute the institutional framework of the integration Programme; and (*b*) projects concerned with directly or indirectly productive activities. The aproach made to the problem of Central America's economic integration has been to carry out successive studies of the different aspects involved, with the scope and intensiveness required in each case. While the work which led to the adoption of the Tegucigalpa and San José treaties was going on, progress was made in the examination of industrial development projects, certain problems of agricultural integration were studie agencies for technological research and administrativ training were inaugurated and a start was made on th co-ordination of the basic sectors of the economy. Thi integrated approach is justified in that it is perhaps th only way of husbanding resources and expediting development which are the basic objectives of the Programme. The case of Central America and that of othe countries which have attempted to pool their economi resources differs in that the latter already possesse an integrated infrastructure, the main restriction bein an institutional framework conceived on a strictly national basis. It has been and always will be essential fo Central America, on the other hand, to build up an rfect a common market and to project new activities nile achieving the co-ordinated expansion of practical- all the basic sectors of the economy.

As part of this general policy, much of the work as been concentrated on the execution of projects of institutional nature. The general framework of the rogramme has already been built up, and the first ange of emphasis is likely to take place in the pattern its activities. The next step will be to improve the stitutional basis, and, at the appropriate time, design d set in motion the additional integration machinery nich will be required. The United Nations may be lled upon to act in this field, but its role will diminish importance. The emphasis will tend towards the study d execution of directly remunerative projects which ve already been examined and those which are to be idied in the future. The completion of this type of oject which would make use of the established institu- nal framework and, at the same time, the co-ordina- n of basic services and facilities will, from the eco- mic point of view, give substance and reality to the forts made in the institutional sector.

1. *Common market*

) *Review of activities*

When the Programme was launched in 1952 there as a small flow of trade among the five countries, nich amounted in that year to 10.3 million dollars or 2 per cent of their total exports. Certain bilateral ee-trade agreements were also in existence, the number which was successively increased until they covered actically all the Central American countries and there- helped to determine this trade flow.

The studies on the formation of the common market d the drafting of a multilateral free-trade agreement ere therefore built up on this foundation and on the perience accumulated in establishing it. Although the mber—and, in some cases, the scope—of bilateral reements have increased, trade among the five count- es has tended to expand less than total trade. The share the former in the latter dropped from 3.2 per cent 1952 to 2.7 per cent in 1957. This served as a warn- g that more comprehensive measures were required secure a substantial increase in inter-Central American de, without detriment to the possible influence of bi- teral agreements It also brought home the need for pplementing the exemption from duties and the re- oval of trade restrictions by measures to stimulate oduction and facilitate the transport of goods included a free-trade system.

For this purpose it was necessary to establish a com- ete multilateral system and studies had to be made its form and scope. They had to consider whether e mutual concessions granted by the countries con- rned should be applied gradually or whether an ab- lutely free trade system should be established forth- th and also what machinery was necessary for the stem's operation. This group of studies played a do- inant role in the work of the Programme and led to e examination of further related problems. The work ne by the secretariat in this field has been channelled rough the Central American Trade Sub-Committee set up on 16 October 1953.[4] The Economic Co-operation Committee has appointed *ad hoc* committees to deal with specific problems and has convened meetings of consultants when necessary.

In accordance with the Committee's general plan for gradual and progressive evolution towards Central American economic integration, the secretariat, in co-operation with TAO experts, analysed some of the problems involved directly or indirectly in the establishment of the common market, such as tariff schedules, customs legislation, trade policy, inter-Central American trade and the fiscal repercussions of equalization and free trade.[5]

These documents and their discussion by the Central American Trade Sub-Committee and the Economic Co-operation Committee itself showed that a procedure based merely on the total elimination of duties and charges might prove unduly rigid. It seemed necessary to consider in addition the possibility of reducing gradually the duties on certain items as a temporary measure or of adopting other procedures which would lead to partial free trade and thus facilitate the adjustment of national production to free competition. Items in respect of which the complete removal of duties gave rise to insuperable difficulties could thus be incorporated within the free-trade system. The importance of equalizing import duties *vis-à-vis* third countries was also realized not only as an essential part of the free-trade mechanism but also as a device which would automatically tend to increase the volume of inter-Central American trade by maintaining the same degree of protection in all the countries and encouraging the replacement of imports by Central American products. Furthermore, it was recognized in a secretariat study that the size of the revenue from import duties in all the five countries and the possible fiscal effects of their equalization and of a free-trade system might entail the progressive application of the free-trade régime to a certain number of products.

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[4] The Sub-Committee set up under resolution 18 (AC.17) has the following functions: (*a*) to draw up a uniform Central American tariff nomenclature for export products; (*b*) to study the means for unifying customs legislation, regulations, terminology and procedures, as well as the concepts for units of appraisal and criteria for valuing merchandise; (*c*) to proceed with the consideration of customs, commercial, monetary, exchange, taxation or other factors affecting the cost of commodities exchanged between the Central American republics, particularly those which are or may be the object of contraband, with a view to offsetting the differentials which give or may give rise to such traffic; (*d*) to formulate recommendations on the foregoing subjects so that Governments may adopt uniform solutions and procedures.

[5] The main documents prepared on this subject during the first seven years of the Committee's work were: *Análisis y perspectivas del comercio intercentroamericano* (E/CN.12/CCE/10); *Política comercial y libre comercio en Centroamérica* (E/CN.12/CCE/11); *Productos incluidos en los tratados de libre comercio vigentes en Centroamérica* (AC.1/1/DT/3); *Productos de posible inclusión en un tratado multilateral centroamericano de libre comercio* (AC.1/1/DT/4); *Relación entre los tratados de libre comercio vigentes en Centroamérica y las bases para la elaboración de un proyecto de tratado multilateral centroamericano de libre comercio indicadas en la Resolución 23 (CCE)* (AC.1/1/DT/5); *Métodos para calcular y determinar gravámenes totales uniformes a la importación en los países centroamericanos* (E/CN.12/CCE/SC.1/31); *Métodos de aplicación y problemas de la equiparación de gravámenes aduaneros en Centroamérica* (E/CN.12/CCE/SC.1/34-TAA/LAT/13); *Repercusiones fiscales de la equiparación de impuestos a la importación y del libre comercio en Centroamérica* (E/CN.12/CCE/110); *Proyectos de código y reglamentos aduaneros para Centroamérica* (TAA/LAT/4); *Segundo Proyecto de Código Aduanero Uniforme Centroamericano* (TAA/LAT/14); *Proyecto de Nomenclatura Uniforme de Exportación para Centroamérica* (E/CN.12/CCE/SC.1/4); *Definiciones y reglas generales para la aplicación uniforme de los aranceles centroamericanos* (E/CN.12/CCE/SC.1/3 Add. 4); *Nomenclatura Arancelaria Uniforme Centroamericana* (NAUCA) and *Manual de Codificación* (E/CN.12/420) United Nations publication, Sales No.: 1955.II.G.3; *Proyecto de Convenio Centroamericano sobre Equiparación de Gravámenes a la Importación* (E/CN.12/CCE/163/Add.1); *Procedimientos para la equiparación de los impuestos a la importación en Centroamérica* (E/CN.12/CCE/SC.1/41/Rev.1); *Evolución del libre comercio y de la equiparación arancelaria* (E/CN.12/CCE/165).

The first draft multilateral treaty was drawn up in March 1956 by an *ad hoc* committee composed of representatives of the Central American Governments. After a period of consideration and study and two additional meetings of the *ad hoc* committee to deal with certain aspects of the draft, the fifth session of the Economic Co-operation Committee discussed the matter and the final text of the multilateral treaty was prepared and signed by the five Governments on 10 June 1958. In September of the same year, uniform import duties were adopted by the Trade Sub-Committee in respect of nearly half the items covered in the multilateral treaty. Their import value represented some 25 million dollars or 5 per cent of the area's total imports in 1957. At the same time, the Committee drafted and submitted for immediate signature by the Governments the first Central American Agreement on the Equalization of Import Duties and Charges. On 1 September 1959, the Agreement was signed, together with an appended Protocol by which the five countries granted a preferential tariff of 20 per cent to their imports of natural commodities and manufactured goods.

The multilateral treaty and equalization agreement provide the bases for establishing a Central American common market. The Treaty contains an initial schedule of commodities—to be successively amplified—which may be traded with complete freedom. The following temporary phases are also envisaged: (*a*) progressive tariff reductions by stages; (*b*) special temporary régimes for commodities which may be subject to quantitative import or export restrictions; and (*c*) free trade among a number of countries less than the total number of the contracting parties and, at the same time, progressive tariff reductions with the remaining country or countries. The purpose of all these measures is the ultimate inclusion of the commodities concerned in the free-trade schedule. It also establishes the unrestricted application of most-favoured-nation treatment to the remainder of the articles traded, freedom of transit, national treatment for persons, investment and goods. It contains other provisions concerning entry into force, duration and abrogation and requires the standardization *vis-à-vis* the rest of the world of import taxes and duties on merchandise subject to free trade.

The equalization of import duties gave rise to practical problems which had to be solved. On the one hand, existing customs classifications differed from one Central American country to another. On the other, the conflicting types of duty and even divergences in their principles of application made comparability difficult. To begin with, a uniform customs nomenclature for imports was tackled and later a method of calculation was worked out which made allowance for the differences in customs procedures and enabled the duties and charges levied in each one of the five countries to be compared. Once this basis for comparability had been laid down, studies were initiated on the form which equalization would take and how it would be maintained. Finally, approval was given to an equalization procedure which established uniform principles for the levying of duties and consolidated within the tariff the charges, taxes and duties which each country applied to imports. This procedure was subsequently improved and extended during the initial discussion of customs equalization held in September 1958, when the methodology and the basic principles of equalization were agreed upon.[6] When those principles were adopted, it was realized that equalization should help to coordinate the tariff policy of the various Governments in pursuance of the aims of the Economic Integration Programme.

The equalization Agreement provides that the Governments are to set up a uniform Central American import tariff within five years. So that equalization may help to promote free trade, it is also established that the countries shall grant complete freedom of trade in respect of all equalized commodities within the space of five years from the date on which equalization is affected. In this way, the Governments expressed their intention of expediting the formation of the common market within the ten-year time limit specified in the multilateral Treaty. The concession of an initial 20-per-cent preferential tariff is another manifestation of the same tendency. In order to attain these targets, all the activities comprised in the integration Programme will have to be accelerated at the same pace.

The multilateral Treaty and the régime for integration industries have been ratified by the legislative assemblies of Guatemala, Nicaragua and El Salvador. When the four integration agreements are first implemented, two lines of action will be necessary: firstly, measures of a more immediate nature related to the treaties' entry into force and; secondly, others of a longer-term nature designed to allow for the rapid evolution of the free-trade system and the establishment of the customs union provided for in article II of the Treaty.

(b) *Future work*

During the next few years the activities of the secretariat will be aimed at the simultaneous negotiation of equalization and a free-trade system in accordance with the instructions given by the Committee, at its sixth session, and the formulation and proposal of solutions for the trade, fiscal and institutional problems which may arise from the application of the Treaty. To accomplish this it will have to co-operate closely with the Trade ub-Committee and, when it is constituted, with the Central American Trade Commission and its secretariat, hich is the body set up by the Governments to consider nd solve problems connected with the common market.[7]

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[6] *Equiparación de gravámenes aduaneros y política comercial común en Centroamérica* (TAA/LAT/21); *Clasificación arancelaria uniforme al nivel de los incisos de los productos incluidos en el Tratado Multilateral de Libre Comercio e Integración Económica Centroamericana* (E/CN.12/CCE/SC.1/38); *Procedimientos para la equiparación de los impuestos a la importación en Centroamérica* (E/CN.12/CCE/SC.1/41); *Consideraciones sobre la aplicación del Artículo XXVII del Tratado Multilateral de Libre Comercio e Integración Económica Centroamericana* (E/CN.12/CCE/SC.1/42). *Proyecto de Convenio Centroamericano sobre Equiparación de Gravámenes a la Importación* (E/CN.12/CCE/163/Add.1).

In the first place, the secretariat will be called upon o undertake, in consultation with the Governments and hrough the appropriate machinery, the study of those tems which may be incorporated in the schedule appended to the Treaty and which will be traded with absolute freedom. The articles included in bilateral treaties, ost of which were incorporated in the multilateral régime, served as a starting point for the compilation of he present schedule. Another type of action will now e necessary. It will involve the study of large groups f items analysed from the point of view of their production possibilities, market situation, degree of competitiveness and general cost position, as well as the fiscal epercussions of their incorporation within the free-trade régime. Although integration has been conceived as a radual process, it seems necessary, while preserving the rinciple of a progressive movement, to impart a strong mpetus to the free-trade system, so that its effects on conomic activities may be clearly appreciated and may ead to the specialization of Central American output. This impetus may take the form of successive additions o the schedule, as already mentioned, as well as of the nclusion of articles produced by integration industries hich will be traded with absolute freedom, according o the provisions of the Treaty relating to industry.

Secondly, it would seem necessary to explore in detail he possibilities of applying the interim régimes provided for in the Treaty and mentioned earlier. The steps aken to extend the schedule of completely free items ill indicate those which, for fiscal or other reasons, ay only be included in a system of successive reductions. Concurrently with the study of items which would e subject to this kind of interim régime, the degree of ree trade to be accorded to them and the specific procedures for its application should be decided upon very oon. This problem has already been studied by the ecretariat but has become increasingly important with he entry into force of the Treaty. The interim régimes re not alternatives but additions to the free-trade system. Within this over-all conception, the prospect of eliminating inter-Central American customs tariffs by means of gradual reductions—say, over a period of 10 years—ould greatly facilitate the extension of the free-trade régime established under the Treaty. A preliminary step of great importance in this direction is the general preferential tariff applied by the five Central American ountries to each other.

Increasing activity is to be expected as regards the equalization of tariffs. During 1960 the Governments will negotiate a uniform Central American tariff, which will be submitted in draft form to the Committee at the end of the year. In order to facilitate this process, it will be necessary, in line with the resolutions on the subject, to improve and amplify the body of basic principles and procedures which have already been applied during the first tariff negotiations. The task here is to ensure that succeeding negotiations for the equalization of tariffs are based on principles and lines of action which will allow the formulation of a common policy by means of the progressive building-up of a single Central American tariff. Besides these general studies, others will be undertaken with a view to suggesting groups of items susceptible of equalization and tendering advice as regards such products as well as their raw materials and substitutes, so that a decision may be reached as to the tariff level to be applied uniformly throughout Central America. These studies, in all their phases, should be undertaken with the active participation of Governments, as in the case of the initial customs negotiations.

It is also to be expected that, as the resources of the Central American Trade Commission's secretariat increase, the participation of the ECLA secretariat will tend to become concentrated on more general studies requested by Governments rather than on studies of individual products. This will release some of the resources available, which may be then employed for the study of other problems relating to the application of the Treaty and its evolution towards the customs union visualized in it.

The formation of a common market and the integration of the economies of a group of countries presuppose the existence of at least some common standards of trade policy and, in the last analysis, the formulation of a clear-cut policy in this field. The secretariat has studied certain aspects of this problem.[8] In article XXIV, the Treaty provides for some measures of joint policy and for the adoption of a common position in international negotiations and leaves room for the renegotiation or denunciation of those agreements which may constitute an obstacle for the Central American free-trade system. The need thus indicated for this kind of measure opens up a whole field of action which must be explored if certain provisions of the Treaty are to be valid and fully applicable or if its scope is to be enlarged. As regards tariff equalization, the aims pursued by adopting uniform customs tariffs *vis-à-vis* third countries might be thwarted by the concession of import exemptions of varying scope and magnitude by two or more Central American countries, or by the application of quantitative controls affecting the free-trade régime.

It will therefore be desirable within the next few years to undertake studies of the franchise system in each country with the dual aim of determining how far such systems constitute an obstacle to tariff equalization and what measures of co-ordination are necessary to remedy the situation in the future. Quantitative restrictions —which may affect the imports or exports of Central American or other countries—are naturally dictated by national requirements. The co-ordination of trade within the area may well lead to the reduction or elimination of these requirements, since shortages may be met or surpluses disposed of in other Central American countries. Although, under an interim régime, the Treaty allows quantitative controls, they represent an obstacle to free trade which should be studied and gradually removed.

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[7] The Central American Trade Commission, whose secretariat s under the jurisdiction of the Secretariat of the Organization of Central American States, has the following main terms of eference: (*a*) to propose measures conducive to the full development of the free-trade area and to prepare a specific plan for the establishment of a Central American common market; (*b*) to study matters relating to the application of the Treaty and to propose measures to solve any problem which may arise; (*c*) to ecommend additions to the schedule appended to the Treaty nd adopt measures to ensure the standardization of customs tariffs, he establishment of uniform fiscal and customs régimes and the conclusion of agreements in respect of double taxation and transport; and (*d*) in general, to take appropriate action on all matters relating to the application of the Treaty and the expansion of the Central American free-trade area.

[8] *Política comercial y libre comercio en Centroamérica* (E/CN. 12/CCE/11), and *Equiparación de gravámenes aduaneros y política comercial común en Centoramérica* (TAA/LAT/21).

Finally, it should not be forgotten that, while the Central American common market was being constituted, the possibilities of building up a Latin American common market were being examined. The procedures to be adopted to implement this project as well as its initial geographical scope are under study and have not yet been clearly defined. In any case, the establishment of another economic grouping in Latin America will probably give rise to a number of inter-relationships between this broader market and the Central American group. In the Latin American common market project, the individuality of the Central American common market has been preserved and it is considered as a unit. Furthermore, the development of the Economic Integration Programme will in itself modify both the volume and composition of trade and will result in increased demands for capital equipment. It might then be feasible to establish certain relationships, preferably in respect of specific commodities between the Central American economic unit and the rest of Latin America. During the next few years, such relationships between the Central American common market and groups established in the rest of Latin America will be studied.

2. *Integrated industrial development*

(a) *Review of activities*

Unlike the other activities covered by the Economic Integration Programme, which are means to achieve certain ends, industrial integration is an end in itself. When the Programme was initiated, the Central American countries, in varying degrees, were at an incipient stage of industrial development and almost exclusively concerned with the production of consumer goods covering only a relatively small proportion of total demand. For example, even today when there are textile mills established in all the Central American countries, it is estimated that about 70 per cent of demand in this sector is met from imports. A series of factors, ranging from the lack of suitable techniques and the absence of sufficient specialization to the shortage of capital equipment, prevent the industrial sector from producing the goods in demand. All these factors, are, however, merely manifestations of the main obstacle to industrial development which, as has been repeatedly asserted, is the limited size of domestic markets. These are too small to warrant heavy industrial investment and encourage a suitable division of labour, a fact which itself prevents the application of advanced techniques. Other factors help to accentuate the smallness of the markets. The unequal distribution of income is unfavourable to the development of manufactured goods. Increases in income obtained by a minority tend to be spent on imported manufactures and the already small market for domestic manufactures is thus further reduced.

The Governments of Central America have encouraged industrialization at the national level. Legislation providing incentives for industry exists in all five countries and other measures of encouragement have been adopted. As a result, new enterprises have been launched in recent years and some degree of specialization on the national level has been attained. Nevertheless, industry has been unable to play as dynamic a role as it should in economic development. The limitation and fragmentation of markets has usually had two results: plant size has either been proportionate to the market and uneconomic or too big for the market with a consequent low coefficient of capacity. In other cases, the limitation of the market has prevented, or delayed for many years, the establishment of certain industries within the Programme, taken the first steps to ascertain the possibilities of an integrated development of new activities and existing industries, which offer good prospects for regional specialization and rationalization. The studies in this field by the secretariat and the specialized agencies of the United Nations have been considered by the Committee at its different sessions. The following industries were felt to be suitable for economic integration: petroleum refining; fertilizers, insecticides and fungicides; veterinary, biological and pharmaceutical products; tyres and inner tubes; paints, varnishes and dyes; ceramics; glass, plastic and metal containers; fisheries products; welded tubing; absorbent cotton; timber; and pulp and paper.

For the purpose of giving greater encouragement to private industry and securing its active participation in the Programme, the Central American Industrial Initiatives Commission was set up in 1956. It is composed of two delegates appointed by each Government, one at least representing private enterprise. This Commission was called upon to consider the studies prepared by the secretariat and by the specialized agencies. At its first session it studied new possibilities of industrial development in specific sectors and explored various forms of co-operation between private enterprise in the different countries.

Among specific projects, the timber industry was given particular consideration by the Committee. Activities in this field have ranged from a study of forestry resources in the area to the formulation of an industrial project for Honduras including a study of organizational an financial arrangements.[9] A special working group der the jurisdiction of the Industrial Initiatives Com- ssion considered the United Nations report on the tex- industry[10] and found considerable possibilities of ional specialization and a potential capacity for import stitution. On the basis of the results obtained, a k programme has been prepared for the purpose of grating various aspects of textile production through ederation of textile associations now being formed. The sibility is being explored of establishing an insecticides l fungicides industry[11] in Central America and it is nned to make similar studies of the other items felt e significant for the Programme, in accordance with order of priorities which has been laid down.

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[9] *Informe sobre los recursos forestales y las posibilidades de producción de celulosa y papel en Centroamérica.* FAO mission, 1954; *Proyecto para la fabricación de celulosa y papel en Centroamérica. Informe general de la Misión de la* FAO *acerca de las bases técnicas y económicas para la selección de la región forestal y el establecimiento de una fábrica de celulosa y papel y de industrias madereras integradas en Honduras, dentro del programa de integración económica del Istmo Centroamericano* (FAO/57/1/603); *Trabajos de selección del área forestal para la planta de celulosa y papel en Honduras; métodos técnicos empleados en el inventario forestal* (FAO/57/1/604); *Características de las regiones forestales explotadas actualmente en Honduras e industrias madereras de posible integración con la fábrica de celulosa y papel* (FAO/57/1/605); *Estructura técnica, consumo de madera, productos químicos, energía, etc.; centros de operación e inversiones de diferentes plantas de celulosa y papel de posible establecimiento en Honduras* (FAO/57/1/606); *Informe preliminar sobre el plan de manejo forestal para el establecimiento de la fábrica centroamericana de celulosa y papel proyectado en Honduras.* FAO mission, 1958; *Informe preliminar sobre los problemas de caminos y transportes para la explotación forestal y la operación de la fábrica de celulosa y papel proyectada en Honduras.* FAO mission, 1958; *Proyecto para la fabricación de celulosa y papel en Centroamérica* (FAO/OAIS/59/1, TAO/LAT/23).

A deeper knowledge of the problems of industrializa- n revealed the need—in this case also—for an insti- onal framework which would facilitate balanced and le industrial development in such a way that its bene- would be fairly distributed throughout the area with- a reasonable period of time. The first draft of a ime for the Central American integration industries s prepared by the secretariat and submitted for study an *ad hoc* committee which met at Managua during 56.[12] The amended draft was considered by the Com- ttee during its fourth and fifth sessions and led to the ption and signature by the five Governments of Agreement on the Régime for Central American In- ration Industries. This instrument provides the neces- y incentives for the establishment of industries which ld not be founded or developed without the Central erican market and for the conversion of others from ational to a Central American scale. It also defines general conditions which should govern their establish- nt or enlargement. This Agreement guarantees the e market of the whole area for the products of the in- ration industries; requires Governments to set up a gle tariff *vis-à-vis* external countries in respect of the ducts of such industries, related products, substitutes, v materials and containers; and grants to the integra- n enterprises the benefits and exemptions due to them der the national legislation of the country where they established. It also provides for a system of com- ition by means of progressive reductions for the prod- s of other plants seeking to enter the market jointly h those from integration industries.

) *Future work*

Now that the Central American Governments have reed upon the conditions in which industrial integra- n should be carried out, a series of activities related the application of the régime must be organized forth- th. These are summed up below.

(i) *Initial group of integration industries and ad- ional protocols.* On the basis of the projects so far died and of the additional plans submitted, it is neces- y to define immediately the first group of industries which might enjoy integration status. Besides the technical and economic considerations which must be borne in mind in each particular case, the problem is to maintain a balance between the countries concerned and to make certain that the new industrial activities are suitably distributed among them. With this end in view, the régime stipulates that no country shall be allocated a second integration plant while any of the others has not been assigned one. This requisite to ensure reciprocity may gradually be fulfilled through the adoption of successive additional protocols until each one of the five countries has been allocated a plant. However, there would also be advantages in arranging for preliminary over-all negotiations to consider simultaneously industrial plants whose technical and economic characteristics are such that they could be established in each of the Central American countries. By means of this second procedure it would be possible to evaluate on a comparative basis the economic importance of the industries to be inaugurated, so as to give a vigorous start to the Programme and to secure from the very outset the united backing of private enterprise throughout the Central American countries.

At the same time, another equally important problem should be tackled. The régime for integration industries, as already pointed out, comprises a basic set of principles which contains no definition of the specific conditions that must govern the establishment of each industry. This gap will have to be filled by additional protocols to the Agreement, which will set forth not only the location but the minimum capacity of plants, the terms on which the installation of new plants within the same industry would be admissible, the requirements necessary for the protection of the consumer, the principles to be followed as regards the participation of Central American capital, and other aspects. Consequently, the definition of these conditions and the provisional drafting of an additional protocol are among the other immediate steps necessary for the implementation of the Agreement.

Furthermore, during its sixth session the Committee decided to set up an *ad hoc* Working Group to study the problems arising in connexion with the application of the régime and to consider the various industrial projects with integration possibilities. Through this Group, in which representatives of private enterprise will be entitled to participate, it will be possible gradually to determine which industrial activities seem suitable for inclusion in the régime.

(ii) *Other industrial projects.* Private entrepreneurs will probably submit to the secretariat of the Central American Industrial Integration Commission applications for the incorporation of industries which, when they have been approved, will extend the integrated development of Central America. Nevertheless, it will still be necessary, as a permanent activity under the Economic Integration Programme, to continue to suggest and study new lines of development for industrial integration, in order to stimulate the process and secure by degrees the necessary balance and complementarity.

Within this field of activity, it will also probably be necessary in the course of time to study and execute, in specific cases, a whole interrelated industrial complex, rather than an isolated industrial project. The execution of this type of project would call for increased resources of all kinds and a joint investment which might be beyond the capacities of the area. It would also entail the creation of a series of permanent services and relations to link the different parts of the industrial complex and full agreement as to the timing and phasing of the installation of plant. But such a plan, besides offering what might prove a more economic form of industrial development, would also meet the need for reciprocity within a single project, inasmuch as the components of the complex could be established in two or more countries whenever it was technically and economically feasible.

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[10] *Informe preliminar sobre la industria textil centroamerica-* (TAA/LAT/8); and *Informe de la reunión del Grupo de Tra- o sobre industria textil* (E/CN.12/CCE/109).

[11] *Informe sobre el uso y la posible fabricación de pesticidas Centroamérica* (TAO/LAT/24).

[12] *Anteproyecto de Régimen de Industrias Centroamericanas Integración*, provisional document prepared by the secretariat pursuance of resolution 26 (CCE); and *Informe del Grupo de pertos sobre Régimen de Industrias Centroamericanas de In- ración* (E/CN.12/CCE/68).

Apart from launching the first integration industries and formulating specific projects, the Programme will have to take into account a series of factors which go beyond the specific elements of each individual project and which may have an important influence on the results obtained. The selection of large-, medium- or small-scale projects, their timing, and considerations connected with the relative desirability of carrying out short-term projects which can be started almost as soon as they have been approved or longer-term projects which involve considerable prior study, give rise to problems of balance between one and the other class of projects which must receive close attention. The study and elucidation of such problems will probably require prolonged action by the United Nations, in close contact with the Central American Industrial Integration Commission and its secretariat.

(iii) *Mobility of resources.* While these inquiries are proceeding, the machinery necessary to allow greater mobility throughout the area of the resources available in each country should be studied. As is well known, funds are now freely transferable throughout the area and private investment, accompanied to a lesser extent by public investment, has been made from country to country. Both the Multilateral Treaty on Free Trade and the Agreement on the Régime for Central American Integration Industries contain provisions for ensuring this transferability. However, the success of its application will largely depend on the extent to which private initiatives are co-ordinated in each branch of industry, as the private sector obtains a fuller grasp of the purposes of the Economic Integration Programme. The main task is to establish frequent contacts with private enterprise and thereby publicize the new investment opportunities offered by the Programme, thus building up the necessary machinery for co-ordinating industrial projects within a single branch and securing the joint capital investment required. By means of *ad hoc* groups—some of which are already in existence—the secretariat should, within its field of competence, contribute to the solution of this important aspect of the Programme. This is yet another example of the change in emphasis of the Committee's activities from study and research to the equally important work of practical execution, without prejudice, of course, to the longer-term research which will always be necessary.

In connexion with the problem of transferability, it will be necessary to standardize gradually the tax conditions affecting investment in the five countries, including certain internal taxes and other factors which influence the expected profitability of a particular investment. As a start, and in accordance with the Committee's decisions, an attempt may be made to equalize the incentives provic
ed by industrial development legislation. Subsequentl
it may prove necessary to include other elements whic
are directly or indirectly involved in the equalization c
incentives. The complete lack of uniformity in this r
spect throughout the Central American countries wi
make the process of equalization of incentives slow an
difficult. In absolute terms, it should lead to the o
ganization of activities in the various countries accorc
ing to the real comparative advantage which each countr
offers for each activity, the influence of factors whic
might be called "artificial" being completely eliminatec
Even if this maximum degree of equality were to prov
unattainable, there is a whole range of basic condition
which could be gradually made more uniform in th
various countries for the purpose of facilitating and i
tensifying the economic integration of the five countrie

(iv) *Financing.* In addition to the more detailed r
search on industrial projects which will have to be pr
moted in the future, a development and financing m
chanism will be needed which, apart from its possibl
functions in relation to other fields of activity, wi
facilitate industrial projects in the private sector and hel
to remedy such disequilibria as may arise in connexio
with industrialization in specific countries or areas.

In a preliminary study of the problem, certain alte
natives were put forward as to methods of financing an
joint promotion of industrial development. In view c
the stage reached by the Programme, on that occasio
it was not considered necessary to adopt decisions on th
matter. In September 1959, on the contrary, the Com
mittee decided that the time had come to create a Centra
American institute for the financing and promotion c
the integrated development of the area. During 1960 th
secretariat, in co-operation with the United Nations Bu
reau of Technical Assistance Operations and in consulta
tion with national and international financing bodie
will prepare a project for the establishment of the insti
tution in question.

3. *Agricultural integration*

(a) *Review of activities*

Economic integration, conceived as a process of spe
cialization in production and expansion of trade througl
out the area, is fully applicable to agriculture as we
as to industry in Central America. But, in this case, th
central link between agriculture and Central America
integration is not, as in the case of industry, the size c
markets. The main problem here is the unequal distribu
tion of agricultural resources among the various cou
tries,[13] which has already given rise to a certain degre
of agricultural specialization and a volume of inte
Central American trade in agricultural commodities whic
represents a high percentage of total reciprocal trad
within the area. This degree of integration has bee
brought about by force of circumstances, but there a
additional opportunities for specialization in productio
which may be seized during the next few years. Howeve

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[13] Total land *per capita* ranges from a minimum of 0.82 he
tares in El Salvador to 2.24 in Nicaragua, according to 19
census data. Total land refers to "farmland", i.e., cultivated lan
pasture, woodland, etc.

act that the development of specialization and trade
king place in a situation where nearly all the five
tries are already producers of agricultural commo-
; imparts to agricultural integration another charac-
ic which differentiates it from industrial integra-
It is not a question of concentrating the production
ertain articles in one or more countries while the
inder cease producing them, but of creating the nec-
ry conditions to ensure that the deficits of those
tries which cannot fully cover their needs should be
from Central American output.

urthermore, the rate of increase during the last ten
s in the demand for primary agricultural commodi-
together with the rise in the population, has tended
ccentuate the shortage of resources in those coun-
where they are already inadequate.[14] The continua-
of this growing pressure on resources will probably
lt in the future in a change in the intensity with
h they are used in the Central American countries
also give rise to significant alterations in the pro-
ive pattern. If, in the course of this process, which
be already foreseen, no attempt is made to pool
urces and the problem is tackled merely at the
ntry level, the prospects of covering the demand for
cultural commodities with Central American produc-
will be limited. It is therefore necessary to aim at
e intensive specialization of output in those items of
estic consumption which have already been subject-
a certain amount of integration. Otherwise, Central
erica will be forced to import more and more agri-
ural commodities from outside the area. In 1957,
imports amounted to 54 million dollars, and if
continue to increase, they will draw off resources
ed to carry out the industrial development which
e aim of the Economic Integration Programme.

The ideas set forth above are the joint result of the
lies carried out so far, which cover a wide field of
vities within the agricultural sector. Research has
n conducted into the technical and economic problems
otton, maize, rice and beans production, the livestock
dairy industries and forestry and fishery resources.[15]

The secretariat's study on the supply of primary com-
lities was designed to discover the causes of the deficit
such products and to suggest measures which might
taken to achieve a satisfactory level of Central Ameri-
self-sufficiency. The findings of this research were
sidered at the first meeting of the Association of
ganizations for the Development of Production in
tral America and Panama and prompted the work now being carried out on a standard classification of commodities, the co-ordination of national programmes for guarantee prices, and machinery for enlarging the area market and starting its operations.

The study of the technical and economic aspects of cotton production contains a broad programme of agronomic research with a view to the production of high-quality fibre and has prompted new activities aimed at transforming Central America into a single productive unit in the world market and also at co-ordinating trade policy. At the present stage, meetings of Central American experts have been held to determine the action which may be taken to achieve these two main objectives.

Similarly, production and market conditions for the livestock industry have been studied and a preliminary appraisal of the prospects for inter--Central American trade in its products has been prepared. On the basis of this initial approach, work is proceeding with a view to the organization of the Central American market and the co-ordination of the trade policy of those countries which export to parts of the world other than Central America.

(b) *Future projects*

(i) *Trade problems.* Whether existing possibilities for specialization and trade in crop and livestock commodities are exploited or not will depend on the co-ordination of the different countries' production policies and the establishment of a trade policy designed to guarantee such commodities permanent access to the Central American market. Even though, in some cases, an all-embracing free-trade system may prove feasible, in others, ways and means will have to be found of reconciling national interests that have led to quantitative export and import controls with the aims of the Economic Integration Programme. A study must therefore be made of the characteristics of a trade system designed to replace the sudden unilateral enforcement of quantitative controls by a mechanism for regulating the volume of trade.

In order to develop a system of this kind, two types of regional study and a technical mechanism to operate at the Central American Level would be required. The first type of study should comprise research on and a general outline of the technical and economic problems involved in the supply of commodities or groups of commodities that offer possibilities of trade expansion in Central America as a whole. The second type should cover—from every aspect and in considerable detail—the prospects for production and trade in various articles in order to ascertain what practical measures might be taken to organize and promote their specialized production and inter-Central American trade in the goods concerned.

To enable this second phase of research to be put into effect, adequate machinery would be required for the consideration and discussion of the basic studies and other working documents, and for the formulation of the specific measures and action that would be needed, as a basis for the ensuing negotiations in the Central American Trade Commission. In order to maintain the unity and continuity of the agricultural programme in the future, an Agricultural Development Sub-Committee was set up in September 1959 to study those economic problems in the agricultural sector which are susceptible of solution at the Central American level. The fields to which the Sub-Committee is to devote special attention in the near future include the organization of inter-Central American trade in agricultural, forest and fishery products and area specialization in the corresponding productive activities. The Sub-Committee will be composed of high-ranking Government officials responsible for the relevant aspects of national economic policy in each country. The Association of Organizations for the Development of Production and Price Stabilization in Central America (*Asociación de Institutos de Fomento de la Producción y Estabilización de Precios del Istmo Centroamericano*), the establishment of which was decided on in 1958, could help to fulfil the functions indicated.

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[14] According to the results of enquiries carried out by ECLA,
Central American deficit in primary agricultural commodities
eased (in terms of 1953 constant prices) from 35.5 million
ars in 1953 to 53 million in 1957.

[15] *Algunos aspectos de la coordinación regional del desarro-*
agrícola en Centroamérica (FAO/CCE/57/1); *El abasteci-*
nto de granos en Centroamérica y Panamá (E/CN.12/CCE/
); *Estudio de los aspectos técnicos de la industria ganadera*
Centroamérica (FAO/55/7/4320); *Nota preliminar sobre al-*
os aspectos económicos de la industria ganadera en Centro-
érica (FAO/55/11/8205); *Informe provisional sobre el mer-*
o ganadero y de productos ganaderos en Centroamérica (FAO
sion, 1957); *Informe sobre los aspectos agrícola, técnico y*
nómico de la producción de algodón en Centroamérica (FAO/
IS/58/1); *Informe de trabajo sobre la industria pesquera en*
troamérica (FAO/CCE/57/4); *Estado de los trabajos sobre*
blemas pesqueros en Centroamérica (FAO mission, 1958).

(ii) *Organization of markets.* Another problem which should be tackled at the same time is the distribution of inter-Central American trade items. The lack of a modern marketing system to serve the whole area is one of the chief stumbling-blocks to trade in agricultural commodities.

During the next few years, three clearly-defined aspects shuold be considered in the Programme: (*a*) the planning and construction of a regional network of facilities for the concentration, distribution, transformation and storage of commodities; (*b*) the introduction of standard systems for classifying and inspecting these commodities; and (*c*) the co-ordination of national guarantee-price policies.

In order to deal with these questions, studies will have to be prepared in the next few years as a basis for negotiations on production, distribution and price policies. Many of the studies could be undertaken in collaboration with the Association of Organizations for the Development of Production and Price Stabilization in Central America.

(iii) *Raw materials for industrial integration.* As a result of the recent conclusion of the Agreement on the Régime for Central American Integration Industries, there will be a demand for raw materials that, at least in some cases, will have to be obtained within the area. This is one of the major links between agricultural and industrial development which has already been studied in relation to the pulp and paper industry. As basic research on resources usually takes a long time and a decision may shortly be taken to set up integration industries, this type of work should be given immediate priority. Research should first be made into the raw materials used by industries that have already been considered interesting for purpose of the Programme, and possibly extended to others at a later date. Its purpose would be to determine the type of raw materials needed, the possibilities of substituting one kind for another, the resources available for the production of such items in Central America, prospects for specialization and trade, and the technical standards of quality required.

(iv) *Other studies.* Apart from the above-mentioned projects, which are intended to further the integration of specific agricultural activities, far-reaching economic aspects should also be studied with a view to ascertaining new possibilities for agricultural integration or possible impediments to the attainment of the Programme's objectives.

In the crop and livestock sector, the characteristics of the system of land tenure have repercussions on important aspects of development, such as those related to technical advances, unemployment and under-emplo ment, emigration from country to town and the i provement in the rural population's standard of living. far, no progress has been made as regards research in such inter-relationships, some knowledge of which indispensable in order to adapt production policy to th requirements of integrated development in the crop a livestock sector. A thorough investigation—outlined another section—of the economic and social aspects land tenure and agricultural working conditions is pr jected for the beginning of 1960.

In the same way, a study of the over-all developme of irrigated farming in Central America should be unde taken in the course of the next five years, in order determine whether integrated utilization of the area water resources would be feasible, and to facilitate th expansion of agricultural production on the basis modern techniques.

4. *The economic infrastructure*

The benefit derived from the potential complemen tarity which exists among the countries in the area limited by deficiencies in their communication and trans port systems which restrict the economic extension markets and the possibilities of competition in Centra America itself. The movement towards economic in tegration could not be confined to the formation of common market alone, since the abolition of tariff dutie was clearly not enough to ensure the establishment such a market. It was also necessary to guarantee com modities and resources access to the five Central Amer can countries through the co-ordination of basic facil ties and the construction of a Central American road ne work which would enable raw materials and finishe goods to be transported rapidly and at the required cos The mobility of other resources—capital, manpower, an technical knowledge—was equally essential.

Within this ample framework, the activities of th Economic Integration Programme have included the c ordination of efforts and plans in regard to transpor electric installations, port facilities and other factors. Th Programme has attempted to preserve a satisfactor balance between projects of this kind and the directl productive type carried out in the last few years.

Work on these questions was begun in 1953 and co tinued up to the formation of two special sub-committe in June 1958 during the fifth session of the Econom Co-operation Committee—the Central American Electr power Sub-Committee and the Central American Tran port Sub-Committee.

(a) *Transport*

In 1952, Central America had 12 500 kilometres highway mainly intended to link the ports to productio and consumption centres. The general structure of th Central American road network was inadequate for the r quirements of integrated economic development, and mited the possibilities of transforming an economy th depended primarily on exports into one in which Centr American trade would play an important role.

Work began by an over-all study of the transpo situation in Central America, undertaken jointly by th ecretariat and the Bureau of Technical Assistance ition, which analysed maritime and air as well as nd transport. The findings of the study were re- at a transport seminar, held at San José, Costa rom 9 to 20 June 1953.

conformity with resolutions adopted by the Eco- Co-operation Committee, new activities were un- en,[16] as the outcome of which an agreement on the rary importation of road vehicles was signed by ve Central American Governments in November This agreement authorized vehicles registred in the Central American countries to be imported ee for a certain period. Later, in June 1958, the nments signed two transport agreements, one on ification of road signs and signals, and the other d traffic. Furthermore, in October 1958, the Trans- ub-Committee approved the experimental applica- n Central America of standardized specifications ad and bridge construction and norms for bridge- ing. The legal and economic aspects of the estab- nt of inter-Central American overland transport s are now being studied, and the drafting of r maritime legislation for Central America is nder way.

e work just described involved a lengthy process began in 1953 with an inventory of the situation oncluded in June 1958 with the creation of the port Sub-Committee to deal with the problems con- l on a systematic and permanent basis. Studies reached the point at which further work will be ary on overland transport, and new studies initiat- maritime and air transport, which have so far ed less attention from the Economic Co-operation ittee. The following are some of the projects which e carried out in the next five years:

) The definitive formulation and consideration of tral American road traffic programme, in which fferent stages of execution are indicated, for pos- implementation and development through a multi- l agreement;

i) Continuation of the studies on maritime and port ation;

ii) Continuation of the studies on road construc- nd on the development of road transport for trad- urposes in the area;

v) Over-all studies on a port system that would be uate for the area's requirements—including those of central American coastwise shipping—and on the site measures for Central American co-operation in dministration of ports and other facilities;

) A study of predictable transport requirements. tudy should include estimates of present and future nd for each type of transport, an assessment of past opment in transport services, an analysis of transport costs and their influence on the price of specific commodities and an examination of the policy followed and the changes that might profitably be introduced.

It would also be advisable in 1963 to make a fresh survey of transport and communications in Central America in order to assess the progress achieved in the decade following the inception of the Economic Integration Programme.

(b) *Co-ordination of electric power systems*

Electrification is another of the sectors which has been included in the Programme from the outset. In 1952-58, work was undertaken with a view to clarifying different aspects of development in this field and exploring the possibilities for Central America co-operation and integration.[17]

When the Programme was first put into effect, energy supplies were small in comparison with demand at that time and with its probable expansion as a result of industrial integration in Central America and the economic development of the various individual countries. Total generating capacity was only 160 000 kW. Transmission and distribution facilities were likewise inadequate and forced energy prices up in every country except Costa Rica. In spite of the efforts made by the Central American countries to strengthen their generating capacity, which rose from 160 000 kW in 1952 to 271 000 in 1957, electric installations were set up at a much slower rate than that of the growth of demand, and some countries still have to ration consumption, or charge high prices, which is tantamount to restricting it. The demand projection shows that demand is likely to increase up to 1965 at an average annual rate of 8-9 per cent in Costa Rica and about 20 per cent in Honduras and Nicaragua.

The attainment of a regular and satisfactory electricity supply obviously requires a more rapid rate of electrification in some countries, and, in all of them, the adoption of electrification programmes based on adequate estimates of future demand which take into account the additional requirements that are bound to arise out of the Programme itself.

In November 1957, a Meeting of Central American Electric Power Officials was held at San José, Costa Rica, in order to discuss these problems. Possibilities of Central American co-operation and co-ordination in relation to the electric power systems were explored, and bases laid down in order to ensure that future electrification activities would give due attention to the needs of the Programme and of each country's economic development process.

Thus work carried out under the auspices of the Programme has enabled the scale of future energy requirements to be determined and some of the potential fields of co-operation to be identified. Since a Central American Electric Power Sub-Committee has already been constituted with wide terms of reference in this sphere, and organizations to promote electrification are to be found in all five countries, future activities should be directed towards the formulation, at the Central Amer-

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The following are the principal studies in this field: *Trans- n Central America* (E/CN.12/356-ST/TAA/Ser.C/8); *El orte en Centroamérica — Reglamentación del tráfico inter- al por carretera* (TAA/LAT/3 and Add.1, 1955-56); *Uni- n de Reglamentos sobre circulación por carretera en el Ist- entroamericano* (TAA/LAT/15-1957); *Situación del trans- en Centroamérica* (E/CN.12/CCE/120 - 1958); *Especifi- es generales para la construcción de carreteras y puentes ntroamérica y Panamá* (TAA/LAT/19); and *Normas para ño de puentes en Centroamérica y Panamá* (SC.3/I/DT/4). lso the report of the first session of the Transport Sub- ittee (E/CN.12/CCE/158).

[17] See *Informe preliminar sobre electrificación en América Central* (ST/TAA/J/Central America/R.1-1954) and *El desarrollo eléctrico en Centroamérica* (TAA/LAT/19-1957).

ican level, of the specific measures needed to translate the possibilities of co-operation into reality.

In the first place, the whole problem of electric power should be dealt with from the standpoint of the entire area, with a view to the co-ordinated utilization of hydroelectric resources and the linking of certain grids. The existence of a hydroelectric potential that is large enough to require a market in two or more countries before it can be economically utilized constitutes the first field in which the possibilities of co-operation have been explored. Preliminary research in 1953 indicated that, before the problem could be tackled, existing electric power systems in the different countries would have to be more closely integrated. The progress that has since been made in integrating and improving national networks warrants the initiation of a study on at least a few linking possibilities. Moreover, even if linking projects have to be deferred for a good many years, the solution to the Central American electricity problem will have to depend some day on a fairly high degree of linking in the area. With this development in mind, the use of standard voltages and frequencies should be promoted throughout Central America. In this same context the Electric Power Sub-Committee might draw up unified technical standards for electric materials, equipment and instruments to be adopted in all Central American countries.

In the same way, financing problems in the electricity industry should be studied, together with the possibility of obtaining a common external source of funds for electricity development programmes conceived and planned on a regional scale. In respect to this point, ite would be advisable to undertake in the next few years a study on the requirements to be met from the technical and economic aspects, in the formulation of electricity development projects which may be used as a basis for requesting internal and external credits. The fulfilment of the remainder of the Sub-Committee's terms of reference will involve additional studies and will require United Nations assistance during the next five years.

5. *Social aspects of economic integration*

From 1956 onwards, as part of the Economic Integration Programme, studies were undertaken of some of the social aspects of Central American development: Consideration was first given to demographic problems and, subsequenly, the analysis of housing problems was begun as permanent activity of the Economic Co-operation Committee. However, many social aspects of development have not yet been the subject of research, and their elucidation is assuming growing importance because of the changes which will accompany economic progress and integration.

During its third session, the Economic Co-operation Committee decided that the secretariat should carry out a detailed study of the demographic problems of Central America and their effect on the economic development of the region, and, in particular, of the relations between population growth and the problems of Central American economic integration. This study, which was finished in 1958, contains a thorough analysis of the main demographic problems in Central America and an appraisal of future population trends in the area which
will be of great value in connexion with the integ
development of the five countries.[18] Now that the
cipal demographic problems of Central America
been defined in general terms, it will be necessar
undertake more detailed studies of certain phenor
which may encourage or impede the process of inte
tion. In accordance with resolution 73 (CCE), ado
during the Committee's fifth session at Tegucig
Honduras, progress is being made in the study of
labour force and its adaptability to development p
lems, its mobility as between rural and urban occ
tions, its capacity to absorb modern techniques, an
attitude towards consumption and savings. A prelimi
study on the middle classes in Central America has
been completed.[19]

The question of housing was first tackled in 1
when a seminar was held at San José, Costa Rica
discuss the technical, social and financial aspects
the subject for the purpose of co-ordinating the eff
being made in each country. The studies recommer
at that seminar have been systematically organ
through a standing Sub-Committee which met for
first time, also at San José, in October 1958.[20]

The work programme adopted by the Sub-Comm
comprises three main aspects: (*a*) study of the posi
of the building materials industries and of the reg
tions on physical planning; (*b*) research into buil
costs and studies designed to standardize building m
rials; and (*c*) study of the demand for building mate
and the prospects of meeting it with Central Amer
products.

A programme for the exchange of technical info
tion has already been launched, and a study of the
sibilities for standardization of building materials
been begun. During the course of the next five yea
will be possible to tackle additional sectors where
ordination can be achieved and increased until the
jectives sought are attained, always provided that
secretariat has the requisite technical resources. It sh
be pointed out that the resources available at the mor
for this programme are not sufficient to do everyt
that is contemplated in the Sub-Committee's pre
scheme of work.

At the fifth session of the Economic Co-opera
Committee it was also decided to undertake researc
certain social aspects of agricultural development, pa
ularly as regards forms of land tenure and agricult
working conditions. The execution of this project
be initiated early in 1960, through the Central Amer
Higher University Council, in co-operation with the
tin American Centre for Research in the Social Scie
(Centro Latinoamericano de Investigaciones en Cie
Sociales), at Rio de Janeiro, Brazil, the ILO, FAO an

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[18] See *Los recursos humanos de Centroamérica, Pana*
México en 1950-1980, y sus relaciones con algunos aspecto
desarrollo económico (TAA/LAT/22).

[19] See *Estudio sobre las clases medias en Centroam*
(E/CN.12/CCE/176).

[20] As a basis for consideration of housing problems, b
studies carried out in the countries themselves, the foll
documents prepared by the secretariat were available: *El p*
ma de la vivienda en Centroamérica (E/CN.12/CCE/AC.
Significación económica de los programas de vivienda en
troamérica y Panamá (E/CN.12/CCE/AC.6/5); *Posibilidad*
un mercado común centroamericano para las industrias d
teriales de construcción (E/CN.12/CCE/AC.6/6).

Nations Bureau of Technical Assistance Opera-
It will comprise a quantitative estimate of the
of land tenure and a description of agrarian or-
ion in each of the various types of property. In
ion with both these aspects, an assessment will
le of the available resources and their structure,
r utilization, of the nature and extent of techni-
vances and of the effects of all these factors on
roductivity, income and standards of living.

ring the next five years it will also be desirable
y out studies of the following socio-economic prob-
ncome and the distribution of wealth; size of the
lass and its development prospects, as well as its
on demand, savings and private enterprise;
l and vocational education and its role in the socio-
nic development of the country; organization of
nities, development of social services and other
important aspects.

6. *Economic development*

1957 a series of economic development studies
unched in Costa Rica, El Salvador, Honduras and
ua.[21] They were conceived—like those already car-
ut in other countries by the ECLA secretariat—in
ht of the problems and needs involved in national
pment policies. However, an attempt was made to
orate in certain of them a new element: the degree
velopment which the Central American economy
attain given certain hypotheses regarding the in-
in inter-Central American trade, the establish-
of integration industries, the co-ordination of
y programmes for agricultural ad industrial de-
nent, electrification, transport, etc.

his research has been and is being carried out in
oration with national organizations in the various
ries. In Costa Rica, the work has been undertaken
e University, which in 1956 initiated for this pur-
an Office for Economic Development (*Oficina de
rrollo Económico*). The secretariat has collaborated
rious parts of it. For the other studies, it was
sary to constitute national groups to work in co-
tion with the secretariat. This type of collaboration
nabled a broad field of action to be covered and has
ed the research resources of the countries them-
and the United Nations to be employed more ef-
tly. Moreover, in certain cases, the work of the
nal groups has been valuable in providing a type
ining for economists dealing with the problems of
ing analysis and projection techniques.

s regards future work, it is planned to begin studies
e development of Guatemala and Nicaragua in 1960.
separate studies of Central America should logical-
lminate in an over-all study of development through-
he area.

he factors determining the growth of Central Ameri-
nce the Second World War would first be analysed,
then those which have influenced the expansion of trade between the five countries and the first manifestations of area specialization. Particular attention would be given to the way in which the size of national markets impedes industrial development and growth prospects would be determined on the basis of varying degrees of integration of the Central American economy, expressed in terms of both sectoral projections and different hypotheses of Central American economic policy. Furthermore, this study of over-all development in Central America would provide valuable criteria for assessing and executing the various industrial projects in their logical order in relation both to one another and to projects for the agricultural sector, transport, electrification, etc.

7. *Fiscal aspects of economic integration*

(a) *Review of activities*

The first study in this field, which was carried out in 1955-56,[22] contains a comparative analysis of existing tax structures in the five countries and an evaluation of their effectiveness in producing revenue and of their influence on investment incentives, productive efforts and the composition of consumption and investment. The nature of this study precludes specific recommendations for tax reform, but its conclusions throw light on the weaknesses in existing tax structures and indicate possible methods of remedying them in order to increase the efficiency of revenue collection. The study's systematic classification of revenue sources on comparable bases in the five republics has also facilitated subsequent work on the equalization of tariffs in connexion with the Multilateral Treaty on Free Trade and Economic Integration.

In addition, the secretariat has examined, on the basis of various hypotheses of development and free trade, the potential losses and gains in revenue which may result for each country from the equalization of Central American tariffs and from the gradual elimination of import duties within inter-Central American trade between 1957 and 1966. This study has made it possible to evaluate, in approximate terms, the magnitude of the fiscal repercussions which might ensue from the application of the Multilateral Treaty. It has also served to establish various methods which may be used in the future whenever the need arises to appraise such repercussions and, in the appropriate circumstances, to assess the alternative sources of revenue that might be sought.

(b) *Future work*

(i) *Equalization of fiscal incentives.* In co-operation with the Fiscal Branch of the United Nations, a comparative study of development legislation, both existing and projected, in the five countries was undertaken in 1959 for the purpose of determining the nature and extent of fiscal benefits, and standard legislation was drafted. This subject is of considerable practical importance because, under the terms of the industrial agree-

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The studies *El desarrollo económico de Panamá* (E/CN.12/
and *El desarrollo económico de El Salvador* (E/CN.12/495)
press and will be published by the end of 1959. They con-
respectively Volumes VII and VIII of the series *Analyses*
projections of economic development published periodically
e secretariat.

[22] See *La política tributaria y el desarrollo económico en Centroamérica* (E/CN.12/486), United Nations publication, Sales No.: 1957 II.G.9. (The study was carried out by the secretariat in co-operation with the Fiscal Branch of the Bureau of Social Affairs of the United Nations.)

ment, the Central American integration industries will enjoy the benefits and exemptions established by the national legislations of the respective countries. The Committe decided at its sixth session (resolution 85 (CCE)) that a working group should be set up in the near future to prepare, on the basis of the relevant report,[23] of a draft Central Amercan standard act on fiscal incentives to industrial development.

(ii) *Tax aspects of economic integration.* Previous work on the tax aspects of tariff equalization and free trade may be continued in the future by the inauguration in 1960 of a more detailed study of internal taxes which affect or may affect inter-Central American trade. The findings of this study might serve as a basis for securing the equalization of certain internal taxes, considered as elements in the costs of production, and for determining the most effective method of taxing domestic production or sales in the various countries in such a way as not to discourage free trade.

The Multilateral Treaty also implies the free movement of capital and persons between the five countries. The secretariat might examine the possible fiscal obstacles to such movement, particularly with regard to double taxation on personal incomes, dividends or company profits, and suggest means of avoiding this, for example, through the negotiation of bilateral or multilateral agreements. This study may also deal with the fiscal treatment of foreign capital, a field in which the countries of the area have advanced towards greater uniformity in recent years.

8. *Other matters*

(a) *Technological research, training and productivity*

From the moment that the programme was launched it was realized that its implementation and economic growth itself would require greater facilities for technological research and administrative training in Central America. Accordingly, a mission of experts conducted research throughout the area in order to obtain a clearer idea of these requirements and to study the best ways of tackling the problem.[24] It recommended the establishment of a technological research institute and an advanced school of public administration financed by the five countries. Such institutes would not only allow the work in question to proceed on a suitable scale but also would lead to economies in research and training activities, and to the avoidance of duplication.

The Central American Research Institute for Industry (*Instituto Centroamericano de Investigación y Tecnología Industrial*—ICAITI) was established in 1956, with allocations from the five countries and with the help of the United Nations. Its headquarters is in Guatemala City. Its activities include research on resources, the execution of studies for the improvement of productivity as well as for industrial and agricultural expansion, and the utilization of new industrial techniques. The Institute is closely linked with the integrated industrial
velopment of the area, since it is called upon to pla
important role in the study and preparation of inte
tion projects, as well as in the technical decisions
visaged in the régime for Central American integra
industries. During the first stage of its activities,
Institute has concentrated on the development and a
tation of technical processes to Central American co
tions as well as settling points on which it is consu
in connexion with problems of productivity at the p
level. At the same time, it has carried out laborat
analyses and tests of materials besides providing o
technological services required by industry.

In view of the connexion already referred to betw
the Institute's work and industrial growth, its scale
activities during the next five years will probably h
to be substantially enlarged. The Institute has co-ope
ed in the study of the possibilities of integrating cert
industries and in this task has enjoyed facilities provi
by the industries themselves. It would undoubtedly
very useful if this type of collaboration could be exten
during the next few years.

The Central American Advanced School of Pu
Administration was set up in 1953, also with allocati
from the five Governments and with the help of
United Nations. It is now recognized as having jur
cal status in each of the five republics. Its headquart
is at San José, Costa Rica, and its functions include
provision of advanced courses at the post-graduate l
for the intensive training of senior public officials.
also organizes periodic extension programmes, car
out research on public administration in the mem
states and disseminates knowledge of modern techniq
and methods in this field. It also assists the Cen
American Government, in an advisory capacity, in
study and application of reforms aimed at moderniz
public administration in the five countries. During
first four years of existence it has discharged its tea
ing functions by training more than 250 public offici
As a result of recent changes in its work programme
will be called upon to extend its activities considera
in the next few years.

Alongside the work of these two bodies in their
pective fields, a productivity programme at the indust
branch level has been in course of implementation, un
the direction of ILO experts, since 1957. From 1
onwards, this programme includes training activit
particularly in the textile industry. This latter work
been undertaken in pursuance of a recomendation by
Working Group on the Textile Industry which met
Managua, Nicaragua, in January 1958.

(b) *Statistical co-ordination*

Analysis of the Central America economies is o
hampered by the lack of comparability of the relev
statistics and their inadequate coverage for the spec
aims of the Integration Programme. For this reason,
co-ordination and improvement of Central American
tistics has been included within the programme. W
this aim in view, the Statistical Co-ordination Sub-C
mittee was set up in 1953. It is composed of lead
statisticians from the five countries who assume di
responsibility for the tasks assigned and participate

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[23] Summarized in document E/CN.12/CCE/181.

[24] *Informe sobre la organización de un Instituto Centroamericano de Investigación y Tecnología Industrial* (ST/TAA/I/Central America/R.2); *Informe preliminar sobre la posible creación de un Instituto Técnico Centroamericano para la formación profesional industrial* (Misión OIT/UNESCO).

in the studies carried out with the help of this sariat, the United Nations Statistical Office and nter-American Statistical Institute.

he Sub-Committee's work has led to the standard- rn of methods and procedures and the elaboration Central American statistical compendium[25] which ins for the first time over-all figures for the whole It will be published every three years. At the same minimum programmes for Central America have drawn up on the basis of the area's statistical needs e fields of foreign trade, industry, agriculture, elec- power and certain aspects of population and trans- Work has also started on the co-ordination of cial and other types of statistics required for the ramme. A course has been initiated on the methods lculating foreign trade statistics for the benefit of al American officials working in this special field.

he co-ordination and improvement of Central Ameri- tatistical services is a continuous task. Now that a in degree of general co-ordination has been secured, resent trend is to investigate specific problems more ughly by means of working groups. It is therefore expected that this type of activity will continue at the same tempo within the Programme.

The work described in the preceding pages is carried out by the ECLA secretariat in its capacity as secretariat of the Central American Economic Co-operation Comittee, in close co-operation with the five Governments themselves. Help in carrying out studies is also given by experts from TAO—under the Nations Technical Assistance Programme—and from the ILO, FAO and other specialized agencies, as well as by the Special United Nations Fund for Economic Development. The Inter-American System has also contributed in specific fields. Close links in respect of co-operation and information have been maintained with the Organization of Central American States (OCAS).

Mention should also be made of the work in Central America of regional institutions which seek to secure the co-operation of the five countries in fields akin or related to the Programme. Close ties have been maintained with the Association of Central American Universities and its Higher University Council, the meetings of Central Banks, the Association of Organizations for the Development of Production and Price Stabilization in Central America and the Regional International Organization of Plant and Animal Health. The work of these bodies is of inestimable value for the Programme and the attainment of its objectives.

Compendio Estadístico Centroamericano, United Nations cation Sales No.: 1957.II.G.8.

THE ECONOMIC DEVELOPMENT OF PANAMA *

In the course of the last two decades the Panamanian economy has undergone a sweeping structural metamorphosis. Its traditionally commercial and urban pattern—responsible for the under-utilization of its internal productive resources—has been radically modified during the two most recent five-year periods, which have been characterized by a remarkable intensification of Panama's economic activity, a considerable expansion of production capacity, the incorporation into the monetary market of large segments of the autarkic rural economy, the substitution of domestic production for a number of imports of staple foodstuffs and other goods, and, in general, a process of integration of the internal production sectors in what might be termed a "national" economy.

A decisive initial impetus was given to this process during the Second World War, both by the operation of fortuitous external circumstances which served to enlarge and protect the market, and by the adoption of certain emergency measures to stimulate domestic production. The subsequent period witnessed a marked reduction in external demand, and the Panamian economy was affected by a severe depression, which gave rise to a serious unemployment problem and a wide margin of idle production capacity. The emergency measures r ferred to then took on a permanent character, and from 1950 a new economic policy, designed to encou age productive activity through the expansion of publ expenditure, the safeguarding of domestic producers ar the adoption of various measures to boost productio was systematically applied.

Projections of the future development of the Pan manian economy show that the above-mentioned proce of transformation is not yet vigorous enough to mak Panama's growth rate such that the standard of livin can be raised with sufficient rapidity and a reasonab degree of relief afforded to the serious problem of u employment and under-employment. The projections question also indicate that the rate of development r quired for the attainment of such targets would be e tremely high, and that the structural transformation the Panamanian economy which began barely 20 yea ago would have to be accelerated. To this end, it would necessary to surmount the main obstacles impeding th process of growth, namely, the smallness of the domest market, the limited range of Panama's natural resource the inadequacy of its basic social capital, and the lo technological level and meagre social productivity of th economy. Furthermore, Panama's economic infrastru ture and its institutional system—which are beginnin to break away from their traditional functions and orie tation—would have to be fully adjusted to the needs an intensive and balanced process of economic develo ment.

I. THE STRUCTURAL TRANSFORMATION OF THE ECONOMIC SYSTEM OF PANAMA

1. *Traditional orientation of the economy*

For centuries the strategic geographical position of the Isthmus of Panama has made it a focal point of international passenger and cargo routes. This was the prime cause of the emergence and subsequent development of a commercial type of urban economy, which generated in its turn an economic infrastructure and an institutional system specially adapted to activities connected with international traffic and trade. The sucessive intensification of such activities during periods when world trade was booming, or when large-scale construction works were being carried out on the trans-Isthmian route, served to accentuate even further these features of the economy, by attracting a great influx of population—both foreign and Panamanian—into the terminal cities of Panama and Colón.

The rest of the country remained virtually dissociated from the urban economy, except for very small sectors and in very special circumstances.

The stimuli to internal productive activity which might have been afforded by external demand and the urban market, especially during periods of prosperit were frustrated by the lack of basic social capital general and of communications in particular, by th autarky of the greater part of the agricultural sector ar by the fact that the economy was completely expose to external competition. Hence both the degree to whic production capacity had been built up and the intensi with which resources were utilized were still extreme low on the eve of the Second World War.

2. *The initial impetus to economic development (1939-45)*

In the late 'thirties and during the subsequent w years, activities in connexion with the operation ar defence of the Panama Canal were very greatly inten fied, and in consequence demand for goods and servic rose substantially. The resident population of the Can Zone, as well as the manpower employed there, expande considerably owing to the construction of defence work airports, highways, quarters for additional troops, ar even a third set of locks for the Canal, although th

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* This article contains a summary of the points of view and conclussions set forth in the study *Analyses and projections of economic development. VII. The economic development of Panama* (E/CN.12/494). (This study was prepared by a Panamanian working group appointed by the Government of Panama, in collaboration with the secretariat of the Economic Commission for Latin America.)

Table 1

PANAMA: PRODUCTION AND IMPORTS OF SELECTED COMMODITIES

	Pre-war period (1937–39)	Post-war period (1946–48)	Index for post-war period (1937–39 = 100)
		Production	
rial products			
densed milk (tons)	266[a]	466	175.1
ar (tons)	4 396	8 017	182.4
(thousands of litres)	17 061[b]	20 766	121.7
tricity (millions of kWh)	29[c]	47	162.1
(millions of cubic feet)	206[c]	357	173.3
ltural commodities			
le slaughtered (thousands of head)	44[a]	75	170.5
slaughtered (thousands of head)	37[a]	44	118.9
under rice (thousands of hectares)	30[b]	46[d]	153.3
under maize (thousands of hectares)	24[b]	36[d]	150.0
under beans (thousands of hectares)	5[b]	9[d]	180.0
		Imports	
h beef and veal (tons)	733	81	11.1
h pork (tons)	271	95	35.1
try (tons)	172	86	50.0
ages, etc. (tons)	240	69	28.8
ed cod (tons)	494	216	43.7
(tons)	3 406[a]	3 323[d]	97.6

: *Analyses and projections of economic development. VII. The economic development of Panama, op. cit.,* table 1.

project was subsequently abandoned. Again, the
sity of the Canal traffic led to an exceptional in-
e in the number of passengers in transit (members
e armed forces and crews of warships and troop-
).

hile demand for goods and services was thus ex-
ing, severe limitations were imposed on the cus-
ry sources of satisfaction of such additional demand
ports—because of the shortage of international hold
ity.

he emergence of this accidentally protectionist factor
the chief cause of the great expansion of internal
uctive activity. In addition, the incentives provided
emand, by higher prices and by protection against
de competition were reinforced by an energetic de-
ment policy, especially in the field of food produc-
New roads were built and those already existing
improved, marketing systems for agricultural com-
ties were established, better farming techniques were
duced, a production credit system was developed
in general, a comprehensive effort was made to
nd Panama's production capacity.

ince productive resources were traditionally under-
ed in Panama, these factors in conjunction enabled
stic production to be substantially increased and an
sive import substitution process to take place (see
1), besides promoting the incorporation of large
rs of the autarkic rural economy into the monetary
et. This signified a marked rise in Panama's eco-
ic activity and a qualitative change in the nature of
conomy (see table 2).

Table 2

PANAMA: SOME INDICATORS OF ECONOMIC CHANGE IN 1939–46

(Millions of balboas)

	1939	1946	Index 1946 (1939=100)
Government expenditure	9.4	36.4	387.2
Government income	12.7	31.3	246.5
Imports	20.5	56.3	274.6
Bank deposit			
Sight (private)	4.4	36.5	829.5
Time (total)	6.7	24.1	359.7
Bank loans and investments	10.6	42.8	403.7
Value of construction permits issued in the cities of Panama and Colón	3.3[a]	8.8	266.7
Food price indices (Panama City)	100.0[b]	175.0	175.0
Population (thousands of inhabitants)	622.6[c]	720.8[d]	115.8

SOURCE: *Op. cit.,* table 2.

a 1941.

b Base period (100) = October 1939-June 1940.

c 1940.

d Estimates as at 1 July of the year concerned.

3. *Economic development in the post-war period (1945-56)*

The establishment of the Panamanian economy on a broader basis and the new direction taken by its productive activities during the Second World War are of far-reaching significance for its subsequent economic development. During the period under review, commercializa-

Table 3

PANAMA: AGGREGATE DEMAND AND ITS COMPONENTS

(Millions of balboas at 1950 prices)

Year	Aggregate demand	External demand (Capacity to import)	Internal demand			
			Total	*Private consumption*	*Private investment*	*Public ex penditu*
1945	361.1	131.7	229.4	164.3	22.0	43.1
1946	388.2	123.7	264.5	191.8	30.5	42.3
1947	360.9	83.8	277.1	206.2	29.7	41.2
1948	337.1	83.3	253.8	188.5	31.2	34.1
1949	338.1	86.0	252.1	194.4	26.6	31.2
1950	350.8	78.0	272.8	212.6	19.9	40.2
1951	350.8	70.0	280.8	221.7	21.9	37.2
1952	369.8	71.7	298.1	232.4	23.9	41.8
1953	384.1	78.5	305.6	230.4	32.1	43.1
1954	407.1	85.3	321.8	242.1	33.6	46.1
1955	432.5	92.5	340.0	256.8	35.9	47.3
1956	447.2	92.4	354.8	264.4	36.2	54.3

SOURCE: *Op. cit.*, tables 3 and 16.

tion of agricultural production and its incorporation into the urban markets, the beginnings of industrialization and the growth of the urban population determined the formation of economic interests and groups vitally linked to the maintenance of domestic production and employment levels. This circumstance, and the weakening of the external stimulus, permanently altered the course of economic policy. The development of domestic production became the means by which the falling-off in economic activity was successfully mitigated in 1948-51, surplus manpower was later gradually absorbed and an attempt was made to achieve the desired improvement in the standard of living of the population.

(a) *The evolution of aggregate demand*

External demand, which had constituted the chief dynamic element in the process of transformation undergone by the Panamanian economy during the war, contracted sharply during the early years of the post-war period (see table 3 and figure I). It continued to decline until it reached its lowest level in 1951-52, and only as from the latter year did a recovery set in. Internal demand—private consumption and investment plus public expenditure—betrayed the effects of this negative influence only in 1948 and 1949, recovering rapidly in the years that followed and then developing steadily. Consequently, the composition of aggregate demand underwent a brisk change in 1945-56. While in the early years of the period the external component accounted for practically one-third of aggregate demand, in its latter years this proportion dropped to scarcely mor than one-fifth of the total (see table 4). Internal deman not only increased its share in aggregate demand, but i absolute terms, too, expanded by as much as 42 per cen between the years mentioned.

Table 4

PANAMA: COMPOSITION OF AGGREGATE DEMAND

(Percentages)

Year	Aggregate demand	External demand	Internal demand
1945–46	100.0	34.2	65.8
1949–50	100.0	23.8	76.2
1955–56	100.0	21.1	78.9

SOURCE: *Op. cit.*, table 3.

It was this important change in the structure of ag gregate demand in favour of the relative and absolut enlargement of the domestic market that determined th course followed by Panama's economic development dur ing the post-war years.

External demand (capacity to import) contracted sev erely in the early years of the post-war period with th restoration to normal of Canal Zone activities and thos connected with transit traffic and the tourist industry The capacity to import fell by nearly 50 per cent be tween 1945-46 and 1950-51 and, despite its subsequen recovery, in the latter years of the period it was sti far below its initial level (see table 5 and figure II). Th most violent and persistent contraction was registere in sales of goods and services to the Canal Zone, but i the latter part of the period this sector still accounte for over 50 per cent of the total capacity to import.

The contraction referred to was mainly attributabl to the fact that fewer opportunities existed for work i the Canal Zone, as a result of which the volume of em

Table 5

PANAMA: COMPOSITION OF THE CAPACITY TO IMPORT

Year	Total	Registered exports	Transit, traffic and tourist industry	Can Zon
(Millions of balboas at 1950 prices)				
1945–46	128.2	13.7	22.7	91.
1950–51	74.0	20.0	9.5	44.
1955–56	92.5	28.7	12.8	51.
(Percentages)				
1945–46	100.0	10.7	10.7	71.
1950–51	100.0	27.0	12.8	60.
1955–56	100.0	31.0	13.8	55.

SOURCE: *Op. cit.*, table 5.

Figure I

ANAMA: AGGREGATE DEMAND, INTERNAL DEMAND AND EXTERNAL DEMAND

(Millions of balboas at 1950 prices)

SEMI-LOGARITHMIC SCALE

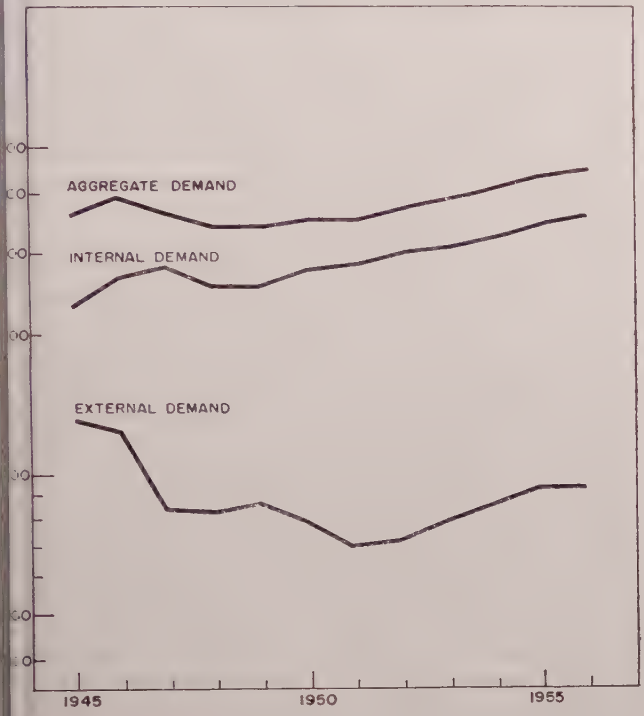
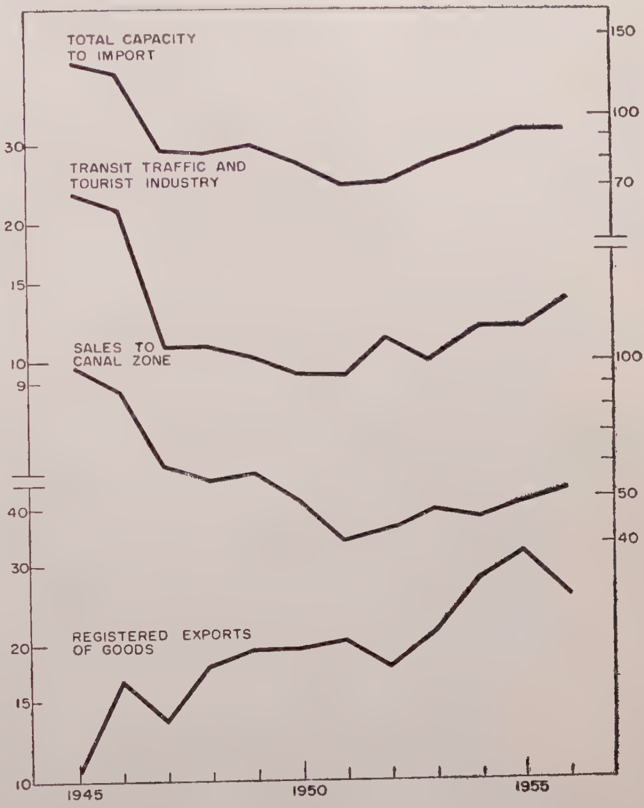


Figure II

PANAMA: CAPACITY TO IMPORT (TOTAL AND BY MAIN CATEGORIES)

(Millions of balboas at 1950 prices)

SEMI-LOGARITHMIC SCALE



oyment declined by at least one-third between 1945 d 1951. Almost equally significant was the fall in the lume of sales of goods and services to residents in e Zone, which dropped to less than half its initial gure. The slight recovery in the capacity to import gistered in the latter years of the period was basically ue to wage increases and sales to civil and military stitutions in the Canal Zone.

Transactions in connexion with transit traffic and e tourist industry fell off very sharply in the first two ars of the post-war period, since much less shipping assed through the Canal and consequently far fewer assengers in transit visited Panama. For the next year two this sector of external demand remained virtual- stationary, but during the last five years of the period was expanding relatively fast, thanks to the develop- ent of the tourist industry and the increase in the umber of airline passengers in transit.

The only definitely dynamic sector of external demand as constituted by registered commodity exports. Its share the total capacity to import rose from less than 11 r cent in the years immediately following the war to per cent in more recent years. Banana exports, which d stood at a low level during the war, recovered rapid- , and rose higher than usual, when production was re- med in certain areas that had been affected by Panama sease (*mal de Panamá*). The most important factor in the expansion of registered commodity exports was the development of new export lines; first and foremost among these were shrimps, which rose to second place on the list of Panama's export commodities. Shrimps, cement, sugar and timber came to represent in conjunction, during the last few years of the period, about 15 per cent of the total quantum of exports of goods.

Internal demand, in contrast, was influenced very slightly, and with a considerable time-lag, by the contraction in external demand, and subsequently registered a quite intensive expansion. The stimulus to the post-war economic development process afforded by internal demand must be chiefly ascribed to private consumer expenditure and to outlays by the public sector (see figure III).

Throughout the period, private consumption accounted for about three-fourths of internal demand. Its evolution thus exerted a decisive influence on the behaviour of demand. As a result of the marked initial expansion of private consumption, the modest extent to which it contracted between 1947 and 1949 and its prompt and dynamic recovery and subsequent growth, the demand deriving from such expenditure did much to alleviate the depression and, later, to expedite the recrudescence of economic activity.

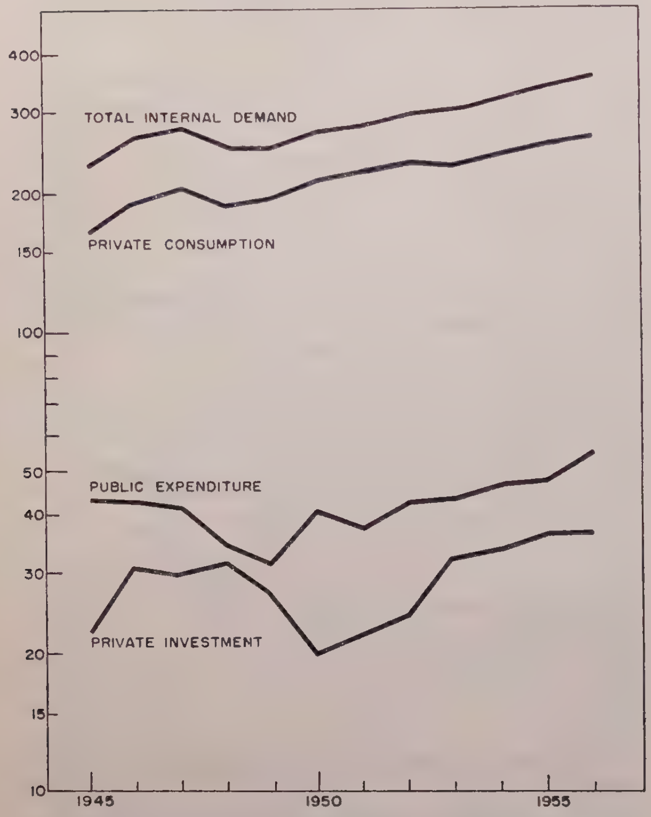
The substantial increase in private consumption between 1945 and 1947 was mainly a result of the fact

Figure III

PANAMA: TOTAL INTERNAL DEMAND, PRIVATE CONSUMPTION, PRIVATE INVESTMENT AND PUBLIC EXPENDITURE

(Millions of balboas at 1950 prices)

SEMI-LOGARITHMIC SCALE



that, whereas there was a rapid contraction in the demand for goods and services originating in the Canal Zone and in related activities during those years, internal demand expanded to a marked extent because the unsatisfied consumer requirements that had accumulated during the preceding period could now be met, as the funds which had likewise accumulated in the war years were available for the purpose.[1]

There are still other factors that acount for so high a level of private consumer expenditure at the very time when employment and current income were contracting. Among them may be mentioned the characteristic inertia displayed by private consumption in face of the need for adjustment to declining levels of disposable income. Population growth and, in particular, the rapid urbanization process that took place during the 'forties also constituted a dynamic factor of great importance for private consumption. Moreover, the possibilities of financing additional consumption did not depend solely upon the funds accumulated by individuals, but were also determined by the fact that such wartime savings permitted a considerable expansion of bank credit. Lastly, it should be added that towards 1950 the efects of external negative factors became a good deal less malignant.

While private consumer expenditure was the principal factor conducing to the expansion of the internal market during the years in which external demand was contracting sharply, from 1950 onwards it was the expenditure of the public sector that assumed the leading dynamic role. In that year both current expenditure and, on a larger scale, investment outlays registered increases which amounted, in the aggregate, to almost 30 per cent in relation to 1949 and which were financed by a substantial enlargement of the public debt. In subsequent years, heavier Government expenditure was possible partly because of an important change in the structure of taxation, namely, the reform which increased the progressiveness and broadened the bases of income tax. Nevertheless, the increment in the public debt—and especially in internal borrowing—was still the main additional source drawn upon to finance the steady rise in public expenditure.

Panama's tax system, like that of most under-developed countries, is doubly inflexible. In the first place, it is very largely based on indirect taxation, especially that deriving from imports of goods. Thus, the limited growth of imports and the depression in internal economic activity between 1947 and 1953 were responsible for a long period of stagnation in tax revenue. Secondly, the modern State cannot shirk the social responsibilities assigned to it by the community, and is obliged to cope with requirements in respect of housing, schools, hospitals, roads and other services and basic social capital. What is more, in the critical circumstances prevailing in Panama between 1948 and 1952, the Government also found itself compelled to seek some means of relieving the unemployment situation.

It is therefore hardly surprising that, despite the rigidity of current tax revenue, the public sector had to increase its expenditure considerably from 1950 onwards. Thus it was forced to have recourse to the internal public debt, which had scarcely ever been resorted to before 1945. No other alternative was left to it, since for institutional reasons a compensatory policy with deficitary financing is impossible in Panama.[2]

The existing monetary system, however, implies that basically fiscal deficits constitute a transfer of liquid funds from the private to the public sector of the economy.[3] Consequently, an expansion of fiscal expenditure financed by means of the internal public debt only helps to increase total expenditure—and thus to give the economy a new lease of life—if the loans enable purchasing power to be put into circulation which otherwise could have remained outside the money stream. Again, the adoption of the dollar as a currency unit means that there is no difficulty in converting internal purchasing power into external purchasing power. In such a case, a large increase in public expenditure can flow out of the country in its entirety without stimulating internal economic activity at all. For these two reasons, undue expansion of fiscal expenditure might tighten the financial situation and result in a contraction of private expenditure.

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[1] This was similar to what happened in the United States just after the war. During the immediate post-war years, liquid assets were the factor determining private consumption, not, as is usually the case, the evolution of disposable personal income,

[2] The year 1904 saw the signature of a "monetary convention' between the Governments of Panama and the United States whereby Panama's legal power to issue is restricted to the issuance of fiat money in denominations lower than 1 balboa, with the proviso that the total amount issued should not exceed the money supply existing in 1904. This convention gave rise in practice to a monetary system characterized by the following main features: (*a*) Panama has no monetary authority with discretiona powers for the effective control of the money supply; (*b*) the currency unit—the balboa—is equivalent in terms of fine conten to the United States dollar; (*c*) United States currency is in effect the circulating medium in Panama; and (*d*) the main determinant of changes in the money supply lies in balance-of-payments variations.

[3] It should be taken into account, however, that part of th internal debt is financed with private funds accumulated unde the social security system. Furthermore, the bank system ca resort to external borrowing to finance purchases of interna public debt bonds.

Unquestionably, however, this was not the case in post-war Panama in the early years, because Government deficits were financed with wartime savings, the liquidation of certain reserves deposited abroad and recourse (on a very small scale to begin with) to the internal public debt; and from 1950 onwards because—although these exceptional circumstances no longer existed and fiscal deficits became substantial—Panama's financial system was characterized by a high degree of liquidity. Thus, the marked increases in public expenditure were followed without exception by significant increments in consumer expediture and private investment, to such an extent that its share in gross income was reduced from about 16 per cent in 1951-52 to less than 14 per cent in subsequent years. Again, it must also be recalled that a considerable proportion of the internal public debt was taken up not by the private sector of the economy but by the social security system and by a foreign banana company, which did not represent a drain on the financial resources of Panama's own private sector. Lastly, about one-fifth was constituted by the floating debt. Since such bonds are accepted by private banks as security for short-term loans, they too have no direct effect on entrepreneurs' available funds.

Nor does the possibility that the positive effects of increased public expenditure might be counteracted by the growth of imports appear to have materialized. Statistics actually reveal that neither consumer goods nor capital goods imports enlarged their share in consumer and investment expenditure, and that the expansion of imports of raw materials and fuels was a function of the development of the gross product. The protectionist efforts of the Government and the relative rise in import prices played an outstanding part in stimulating the import substitution process and, consequently, setting limits to the amount of possible additional imports.

Thus everything seems to corroborate the assertion that the expansion of public expenditure as from 1950 made a considerable contribution to the recovery and subsequent expansion of economic activity. Yet the financing policy pursued cannot constitute a permanent solution of the fiscal problem. The time is bound to come when the absorption of private funds by the State will exert a restrictive influence on private investment. Moreover, undue enlargement of the debt represents, from the Government's point of view, a very costly way of augmenting its resources, since the resultant servicing and amortization ultimately become a heavy item in fiscal expenditure.

Lastly, it should be mentioned that the system of fiscal financing which prevailed in post-war Panama affected the investment outlays more than the current expenditure of the public sector. Since the latter is the more rigid—for the State provides indispensable services and, in addition, constitutes an important source of employment when under-employment and unemployment become widespread—the fluctuations in Government income were directly reflected in public investment. The result was a lack of continuity in State investment programmes and the allocation of a secondary priority to this category of expenditure, so that the investment of the public sector tended to become less important in relation both to the sector's total expenditure and to capital formation in the private sector (see table 6). Since Panama has insufficient basic social capital, such trends represent a serious disadvantage for its future economic development.

Table 6

PANAMA: PUBLIC INVESTMENT IN RELATION TO PUBLIC EXPENDITURE AND GROSS INVESTMENT

(Percentages)

Annual average	*Public investment as a percentage of*	
	Public expenditure	*Gross investment*
1946–47	27.8	27.9
1951–52	17.2	22.8
1954–55	16.3	17.9

SOURCE: *Op. cit.*, annexes, tables 28 and 33.

(b) *Evolution of aggregate supply*

The development of the two components of aggregate supply—the gross product and imports—followed very similar lines during 1945-56, and distinctly resembled that of aggregate demand (see figure IV).

The *gross product* by virtue of the tremendous pressure of demand, was maintained at maximum levels during the early years of the post-war period (see table 7). From 1947 onwards, when external demand declined from its previous high levels, economic activities were faced with a gradual contraction of effective demand. To the direct disemployment caused by the reduction of activities in the Canal Zone was added the increasing unemployment resulting from the decrease in demand for goods and services in the Zone and on the part of the jobless active population. Panama then entered upon a period of depression and unemployment of the factors of production which lasted until 1952 or 1953. The gross product dropped to its minimum levels in 1948 and 1949, signs of recovery being observable as from 1950. Nevertheless, at the end of 1950 there was still a good deal of unemployment, mainly concentrated in the cities of Panama and Colón and in the activities most directly linked to the external demand deriving from the Canal Zone and from transit traffic and the tourist industry (see table 8).

By about 1952-53 the gross product had regained its former level and a definite process of expansion began. This was largely attributable to the recrudescence of aggregate demand. However, the stimulus thus provided might perhaps have been less effective had it not been for

Table 7

PANAMA: GROSS PRODUCT, BY BRANCH OF ECONOMIC ACTIVITY, 1945-56

(Millions of balboas at 1950 prices)

Branch of activity	*1945*	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*195*
Total	*264.8*	*269.0*	*269.7*	*251.8*	*252.8*	*258.3*	*262.2*	*276.9*	*293.2*	*300.3*	*314.7*	*325.*
Agriculture, forestry and fisheries	51.8	59.1	61.8	61.8	65.7	65.0	66.8	66.6	75.1	76.3	83.0	80.
Manufacturing industry	21.8	24.9	26.6	26.0	27.1	28.3	28.7	35.3	35.3	33.8	34.5	35.
Construction [a]	12.3	11.4	13.9	10.7	9.2	9.4	9.3	10.4	11.6	12.1	13.8	14.
Electricity, gas and water	2.8	2.9	3.2	3.4	3.5	3.8	4.1	4.5	4.7	4.9	5.4	5.
Transport, storage and communications	10.0	10.6	9.9	10.2	10.3	11.9	11.2	11.5	12.5	14.2	13.6	17.
Wholesale and retail trade	35.5	42.0	44.3	38.6	39.2	41.0	41.7	46.1	47.0	48.2	50.0	51.
Banking, insurance and real estate	4.3	5.1	5.5	5.0	5.2	5.3	5.8	6.3	6.5	7.0	7.0	7.
Housing	23.3	24.1	25.0	26.2	27.5	28.6	29.4	30.4	31.4	32.7	34.1	35.
Public administration	3.5	3.8	3.8	3.9	3.8	3.9	3.8	3.9	3.9	3.9	4.4	4.
Public and private services	44.0	44.8	40.8	38.9	38.1	41.1	42.5	42.9	45.5	49.9	50.1	53.
Services to Panama Canal Zone	55.5	40.3	34.9	27.1	23.2	20.0	18.9	19.0	19.7	17.3	18.8	20.

SOURCE: *Op. cit.*, annexes, table. 2.

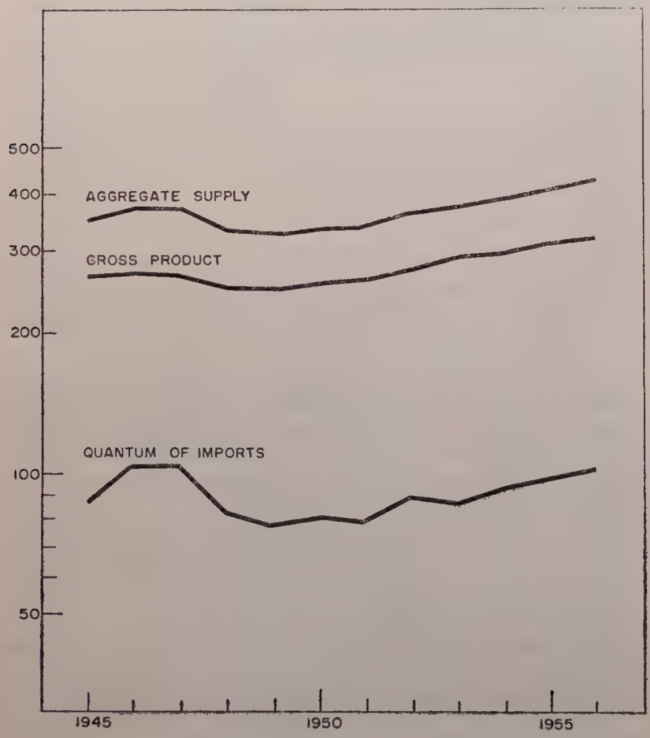
[a] Including the mining and quarrying sector.

Figure IV

PANAMA: AGGREGATE SUPPLY, GROSS PRODUCT AND QUANTUM OF IMPORTS

(Millions of balboas at 1950 prices)

SEMI-LOGARITHMIC SCALE



the contribution of other factors which permitted a recovery in investment, the gross product and, up to a point, employment.

The first of these influences derived from the change that took place between 1945 and 1951 in the relative levels of domestic and world-market prices. The fact that imported goods were becoming relatively more expensive encouraged internal economic activity in those years not only to produce new export lines but also to substitute domestic production for imported goods. An analysis of the import substitution process shows that it was precisely in the period in question that most of the substitutions were effected. Moreover, as was previousl remarked, it was also in those years that trade in traditional exports was intensified and several new expor commodities appeared on the market.

A second factor was the decisive change in Panama's economic policy, which found expression on the on hand in the expansion of public expenditure from 195 onwards, and on the other, in various measures to develop production. The new economic policy represente a vigorous reaction against the traditional interpretatio of what the Panamanian economy had been and ough to be, to wit, the hallowed doctrine of the Canal economy It originated mainly in the severe contraction of economic activity, with the consequent unemployment an critical fiscal situation, and in the need to protect th domestic productive activities which had developed unde the aegis of the exceptional conditions prevailing durin and immediately after the Second World War.

The Panamanian Government categorically declare its intention of promoting the country's internal economic development, especially by encouraging agricultural activity and promoting the establishment of industrial enterprises. In accordance with these aims, variou

Table 8

PANAMA: RELATIVE UNEMPLOYMENT,[a] TOTAL AND B MAIN PROVINCE AND ACTIVITIES, ACCORDING TO 1950 CENSUS

(Percentages)

	Total for Republic of Panama	*Province of Panama*	*Province of Colón*
Total [b]	8.8	*15.6*	16.8
Agriculture	0.9	2.7	2.1
Industry	12.9	15.4	16.3
Construction	32.8	36.7	34.2
Trade	9.8	11.0	12.5
Transport, communications and storage	14.4	15.6	16.4
Services	11.8	13.2	15.3
Canal Zone	19.7	19.3	19.9

SOURCE: *Op. cit.*, table 27.

[a] Percentage relation between unemployed population and employed plus un employed population.

[b] Percentage relation between unemployed population and active population.

crees were enacted for the protection and development industry; the Institute of Economic Development *stituto de Fomento Económico*) was established; ex-rnal assistance was institutionalized and extended to omote the technological improvement of farming; the tivities of the *Banco Nacional de Panamá* were expand-; customs tariffs were revised with a view to further- the development of domestic industry; and steps re even taken during the later years of the period to ohibit or restrict imports of specific articles in order protect domestic producers.

As a result of the change in aggregate demand and the marked expansion of the domestic market referred above, in combination with the adoption of a policy signed to promote domestic production, the most im-rtant of the sectors producing goods—agriculture and anufacturing industry—expanded between 1945 and 56 by 55 and 62 per cent, respectively (see table 9). e basic services sectors—energy and transport—re-stered even larger increments, amounting respectively 96 and 70 per cent. On the other hand, the services ctors developed at a relatively slower rate, especially ose directly connected with the external demand gener-ed by the Panama Canal Zone and the activities relat- to transit traffic and the tourist industry.

A more accurate impression of the intensity of the ocess of structural transformation undergone by the namanian economy during the post-war period can obtained from a study of the changes in the composi-on of productive activity. The basic sectors perceptibly creased their share in the gross product. While in 1945 at of agriculture was less than one-fifth, it had risen 25 per cent by 1956 (see again table 9); manufactur-g industry, which in the first of the years mentioned had accounted for scarcely more than 8 per cent of the gross product, had reached nearly 11 per cent by the end of the period. A remarkable relative expansion was registered in certain basic services (transport and energy), which together represented 5 per cent of the total in 1945 and subsequently rose to 7 per cent. Thus, in the aggregate, these basic sectors, with the addition of construction, raised their share in the total gross product from barely 37 per cent in 1945 to about 50 per cent in 1956.

Table 9

NAMA: EVOLUTION OF GROSS PRODUCT BY SECTORS

(Percentages)

	Increase between 1945 and 1956	*Composition by sectors*	
		1945	*1956*
griculture, forestry and fisheries	54.8	19.6	24.6
anufacturing	61.9	8.2	10.8
nstruction	14.6	4.6	4.3
ectricity, gas and water	96.4	1.1	1.7
ansport, storage and communication	70.0	3.8	5.2
Total	*54.1*	*37.3*	*46.6*
ade	45.1	13.4	15.8
nking, insurance and real estate	79.1	1.6	2.4
ousing	52.8	8.8	10.9
blic administration	31.4	1.3	1.4
blic and private services	22.5	16.6	16.6
Total	38.6	*41.7*	*47.1*
anal Zone	−63.8	21.0	6.2
Grand total	22.9	*100.0*	*100.0*

URCE: *Op. cit.*, table 26.

The relative importance of the services sectors fell from nearly two-thirds of the total to just under half. The factor determining this contraction was the sharp 64-per-cent drop in that part of the gross product which derived from the Canal Zone. This sector's share in the national gross product had reached 21 per cent in 1945 anr by 1956 had dropped to a mere 6 per cent. Simultaneously, the total number of employees of the Panama Canal Company fell from about 30 000 persons to less than 12 000. This last fact is a particularly clear indication of the influence exerted on employment by the change in the composition of aggregate demand. The external demand sectors which shrank during the post-war period were in fact mainly constituted by personal services, for which reason their decline lead to a serious increase in unemployment. The expansion of the internal market which took place after 1950, on the other hand, implied an increase in demand for basic goods and services. In the production of the latter the volume of employment is determined by the stock of capital equipment. As in so short a period it was impossible for capital equipment to have expanded enough to absorb the large proportion of redundant manpower, a situation of "full employment" was brought about in Panama during the latter part of the period, and, at the same time, a high degree of unemployment.

Imports developed along much the same lines as the aggregate gross product, but in their case the structural changes were not so marked. The most significant related to consumer goods, especially non-durables. The expansion of domestic production of both primary and processed foodstuffs eliminated or notably reduced imports of such staple commodities as rice and maize, as well as of milk products, oils and fats, sugar, confectionery, tobacco manufactures, footwear and clothing. Despite the intensity of the import substitution process, non-durable consumer goods still represented over 43 per cent of the quantum of imports in the last years of the period. Panama is thus at a stage of economic development which still affords quite an ample margin for import substitution.

Another significant change in the composition of imports is observable with respect to construction materials. In 1948, Panama began to produce all the cement it used, and imports of this item ceased altogether. The establishment of this industry is one of the most important cases of industrial development in Panama during the period under analysis, and, furthermore, it did a great deal to curb the rate of increase of imports.

II. Projections of the growth of the Panamanian economy

The analysis of a specific period in a country's eco-omic history acquires true meaning and serves as a uide for policy only when it enables the determinants of the economic development process to be identified. These determinants once defined, a study of the factors underlying their behaviour will serve as a basis for projecting their evolution and hence for surmising the probable trend of the country's economic growth.

The aggregate projections of Panama's economy have mainly been based on an estimate of the future behaviour of the fundamental exogenous variable—the capacity to import—and on assumptions regarding the most important internal dynamic factors, namely, the rate of capital formation and the intensity with which productive capacity is utilized (the product-capital ratio).

1. *Aggregate projection of probable trends*

The aggregate projection of possible trends is an attempt to make a quantitative assessment of the trends that are inherent in the operation of Panama's economic system in order to surmise the probable evolution of the various components of aggregate supply and demand, i.e., the macroeconomic magnitudes which define a country's situation. If this projection is combined with a projection of demographic growth, covering both the total and active population, a general idea may be obtained of the situation which is likely to prevail at the end of the next decade if the basic conditions of the prognosis are fulfilled.

The projection of the capacity to import, which is particularly complex in the case of Panama, called for exhaustive research.[4] Hypothesis A of this projection was chosen for estimating probable trends, since it corresponds to the general assumption of continuity for Panama's basic economic conditions which characterizes the projection. This hypothesis assumes that the capacity to import will increase by barely 13 per cent in 1956-66, as the salient sectors of Panama's external demand have a tendency to stagnate (see table 10).

Table 10

PANAMA: AGGREGATE PROJECTION OF THE CAPACITY TO IMPORT (HYPOTHESIS A)

	1956	*1966*	*Index (1956=100)*
	(Millions of balboas at 1950 prices)		
Total	92.4	104.1	112.7
Registered exports of goods. .	25.7	30.0	116.7
Transit and tourist services . .	13.7	21.9	159.9
Sales to the Canal Zone. . .	53.0	52.2	98.5

Source: *Op. cit.*, table 55.

The sale of goods and services to the Canal Zone would decline slightly in 1956-66, an important point being the reduction of almost 13 per cent in the quantum of manpower services during that period as the result of a substantial rise in productivity. If no appreciable changes take place in the number of man/hours worked per week, that percentage would represent the decrease in employment in the Zone.

Registered exports of goods would be 17 per cent more than in 1956. But, as the base year level is abnormally low, the increment is more apparent than real. In fact, the figure projected for 1966 is a little less than that recorded in 1955. The unfavourable prospects fc this sector of external demand are chiefly attributabl to the slim hopes of an expansion in sales abroad c traditional agricultural commodities—bananas and cacao—and to the probable stagnation of shrimp export

The least important sector of the capacity to impo —transit traffic and the tourist industry—is the onl one which holds out really dynamic prospects. This i mainly because of the probable evolution of tourist an passenger traffic as a whole, since re-exports are likel to remain stationary at a very low relative level.

The magnitude of the internal variables determinin the process of growth was estimated on the basis of pa experience in relatively adverse periods. Hence, th gross investment rate assumed is 16 per cent, which i exceeded *only by the rate* prevailing during the exceptional years at the beginning of the period under revie ans is similar to that recorded in the latter years. coefficient of 0.40 has been adopted for the produc capital ratio, which corresponds roughly to what mus have existed in the last few years of the period. A capita coefficient of that size may be regarded as quite hig for an economy in which the shortage of basic socia capital and the restricted development of the domesti goods and factors market make it difficult for productiv resources, and capital in particular, to be put to bette use. Despite this, the projection assumes a concentrate effort on the part of the public sector to improve th situation, principally through an extension of the highway network, which at present constitutes the most serious bottleneck in the Panamanian economy and is major deterrent to productivity. Too low a coefficien would, however, be incompatible with the assumptio of a relatively high investment rate. The depreciatio rate of tangible reproducible wealth was assumed to b 3 per cent annually, which is in line with the figure obtained when making estimates for other Latin America countries.

The projection of probable trends is based on assumptions which may be considered as favourable in vie of Panama's present structural and institutional conditions, and, above all, the tiny expansion in the capacit to import. Yet the gross product would increase du ing the next decade at a rate barely exceeding that o population growth. The *per capita* product would therefore remain practically stationary while *per capita* consumption—the general level of living—would fall b more than 7 per cent (see table 11).

Nor does it seem very likely that employment problems will be solved, since a constant level of productivit per *active* person would maintain the relative propo tions of unemployment and under-employment as present. And if, as may well happen, productivity pe *employed* person were to rise, the projection of probable trends would imply a deterioration in the employment situation. This is all the more likely since the composition of the gross product would tend to change t the detriment of sectors with a high manpower densit per unit of product.

In view of the dismal prospects of growth wit which the Panamanian economy is faced, a genuine e fort should be made to prevent the situation fro worsening and to avoid serious economic imbalance Given the lack of dynamic stimuli for private inves

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[4] See *op. cit.*, chapter III, for a description.

Table 11

PANAMA: PROJECTION OF PROBABLE TRENDS

	1956	1966	1966 index (1956=100)	Annual rate of growth between 1956 and 1966
	Millions of balboas at 1950 prices			
ggregate supply	429.4	548.2	127.7	2.5
Total gross product	325.5	444.1	136.4	3.2
Gross product excluding Canal Zone	305.4	426.6	139.7	3.4
Gross product Canal Zone	20.1	17.5	87.1	−1.4
Imports	103.9	104.1	100.2	—
ggregate demand	447.3	556.1	124.3	2.2
Capacity to import	92.4	104.1	112.7	1.2
Private consumption	264.4	328.5	124.2	2.2
Public consumption	41.3	54.8	132.6	2.9
Gross investment	49.2	68.7	139.6	3.4
Public sector	13.0	24.3	186.9	6.4
Private sector	36.2	44.4	122.7	2.1
fference between supply and demand	17.8	7.9	—	—
Terms-of-trade effect	6.3	7.9	—	—
Statistical discrepancy	11.5	—	—	—

URCE: *Op. cit.*, table 49.

ent and the demands made by a high investment rate, n increment of almost 90 per cent would be required government gross investment. This in itself would nply a radical alteration in the traditional role of the ublic sector in Panama.

While imports would remain virtually constant, the emand for imported capital goods, raw materials and onsumer goods would tend to expand fairly rapidly. s the first two categories of imports are essential for e development process, substantial import substitution hould be achieved with respect to consumer goods. The hare of the gross product in the aggregate supply, which as less than 70 per cent in 1956, would therefore have increase to almost 80 per cent. These two examples lustrate the scale of the structural changes required if ven an approximate resemblance to the present economic situation is to be maintained.

2. *Aggregate and sectoral projection of a development hypothesis*

This projection serves a different purpose from that f the projection of probable trends, which was intended to provide some indication as to the probable evolution of the general level of living given a number of ormal and predictable circumstances. The present case s an attempt to illustrate the diverse measures and hanges that would be required if the level of living is o be raised at a certain rate. In order to achieve this ate of improvement the factors determining economic development would have to surpass the figures adopted n the projection of probable trends. In other words, the apacity to import would have to expand more rapidly, while the rate of investment would need to be raised onsiderably and the utilization of productive capacity ntensified.

Panama's economic system displays, however, some nstitutional and structural features which make it very difficult for the fundamental variables of economic development to attain the necessary magnitudes. One of these features is the monetary system, which is closely connected with the traditional trends of the economy. The operation of the system guarantees monetary stability and exchange parity with the United States dollar which have been essential in the past to enable Panama to carry out its role of international clearing-house for goods and persons, and to facilitate trade transactions with the Canal Zone. In these circumstances, the size of and any variations in the money supply are primarily determined by changes in the balance of payments. The Panamanian economy recently departed from its time-honoured course by intensifying internal productive activities and expanding agricultural and industrial production to a notable extent. In so far as its characteristics permitted, the monetary system adapted itself to the new conditions. Official banks paid greater attention to the financing of agricultural and industrial production and private—including foreign—banks experimented with a credit policy for the sectors producing goods. However, unless the banking system becomes more flexible, credit policy will probably be unable to meet all the demands placed upon it by the highly intensive development of the domestic production sectors.

Another handicap to economic growth is the lack of incentives for private investment. This is primarily a result of high production costs, which derive from the following factors in particular: (*a*) the low productivity of resources as a result of Panama's extremely meagre stock of basic social capital which hampers the mobility of productive factors and prevents the integration of the Panamanian economy into a single goods and factors market; (*b*) the primitive techniques used in farming, which pushes up the cost of industrial raw materials and foodstuffs; (*c*) the size of the market, which is limited by the large proportion of the population that remains outside the money market, by the large amount of urban and rural under-employment and unemployment, and, in general, by the unequal distribution of national income; and (*d*) the influence of the relatively high wages in the Canal Zone labour market on the wage rates for certain types of urban work paid in the Panamanian labour market.

Starting from the analysis of the main obstacles to economic growth and on the assumption that they could be adequately overcome, a second aggregate projection was constructed to indicate the prerequisites for an economic development process. In this case, the target set for private *per capita* consumption was 2.0 per cent annually. A new projection (hypothesis B) was made of the capacity to import, which, in contrast to hypothesis A, presupposes better internal conditions for exports and vigorous encouragement of export activities. None the less, external demand would increase by only 45 per cent, which is little more than the population increment (see table 12). The least dynamic sector would be that of sales to the Canal Zone, which would barely move up. Exports of goods, on the other hand, would expand 71 per cent mainly because of the development of new export lines, among which meat offers the most promising prospects. Transit and tourist traffic would continue to constitute the most dynamic sector and would more than double thanks to much brisker tourist activity.

Table 12

PANAMA: AGGREGATE PROJECTION OF THE CAPACITY TO IMPORT (HYPOTHESIS B)

	1956	*1966*	*Index (1956=100)*
	Millions of balboas at 1950 prices		
Total	*92.4*	*133.6*	*144.6*
Exportaciones registradas de			
Registered exports of goods	25.7	44.0	171.2
Transit and tourist services	13.7	31.6	230.7
Sales to the Canal Zone	53.0	58.0	109.4

SOURCE: *Op. cit.*, table 55.

With respect to the internal factors conditioning economic growth, it has been assumed that the product-capital ratio would rise to 0.46, which is probably the same coefficient as in 1945-47, when productive activities were at their height. Given this assumption and those previously adopted, the investment rate would have to reach 21 per cent of the gross product and this, in its turn, would have to increase 6.8 per cent annually. The intensive effort that would be called for and the changes that would ensue from the process of growth may be appreciated, in aggregate terms, from the scale on which import substitution would have to take place and from the expansion required in public investment to raise it with respect to intermediate goods are then studied and to about the same proportion of over-all expenditure in the fiscal sector (see table 13).

The extensive study undertaken presents the detailed sectoral projection of Panama's economic development that corresponds to the aggregate projection outlined above. On the basis of the general assumptions made, particularly with respect to private consumption, the future evolution of demand for end goods is analysed by principal products and groups of products. Data already given have been utilized, together with the analysis of historical trends and import substitution possibilities, for a detailed projection of internal production in 1966, from which the raw materials, fuels, energy and other inputs required by productive activities in that year may be estimated in detail. Import substitution possibilities with respect to intermediate goods are then studied and a detailed estimate is made of requirements in this branch.

Capital goods requirements were thereafter estimated using the foregoing projections in conjunction with those relating to gross investment, both public and private. Internal production of such goods and the volume to be imported would depend on the extent to which import substitution could be achieved in this field.

The detailed projections of internal production and imports have been regrouped in such a way as to provide a picture of the evolution required of the gross product by economic sectors, and that of imports by categories of goods. From this grouping further indications can be obtained as to the magnitude of the effort implicit in the economic development projection. In view of the development of consumption assumed in the projection and of the likelihood that imports will increase only a little, the sectors producing goods—agriculture and manufacturing—would have to raise their output by 73 and

Table 13

PANAMA: PROJECTION OF THE ECONOMIC DEVELOPMENT HYPOTHESIS

	1956	*1966*	*Index (1956=100)*	*Annual rate of growth between 1956 and 1966*
	Millions of balboas at 1950 prices			
Aggregate supply	429.4	738.0	171.9	5.6
Total gross product	325.5	604.4	185.7	6.4
Gross product excluding Canal Zone	305.4	586.9	192.2	6.8
Gross product Canal Zone	20.1	17.5	87.1	−1.4
Imports	103.9	133.6	128.6	2.5
Aggregate demand	447.3	749.5	165.6	5.2
Capacity to import	92.4	133.6	144.6	3.7
Private consumption	264.4	426.4	161.3	4.9
Public consumption	41.3	64.8	157.1	4.6
Gross investment	49.2	124.7	253.4	9.7
Public sector	13.0	55.0	423.1	15.5
Private sector	36.2	69.7	192.5	6.8
Difference between supply and demand	17.8	11.5	—	—
Terms-of-trade effect	6.3	8.0	127.0	—
Statistical discrepancy	11.5	3.5	—	—

SOURCE: *Op. cit.*, table 53.

9 per cent respectively. In order to achieve such in- rments, it would be necessary for the basic services ttors—transport and energy—to expand 75 and 132 per ht. Since this expansion would entail a much larger pply of basic social capital, construction activities uld have to increase more than two and a half times. contrast, the services sectors would continue to lose relative importance and the Canal Zone sector—which uld decline nearly 13 per cent in absolute terms— uld see its share in the gross product reduced by at st 3 per cent.

This notable metamorphosis of Panama's productive ucture would be accompanied by an even more mark- change in the composition of imports. In view of the pe of goods which could be produced in Panama, stitution would be the most intensive with respect to consumer goods, imports of which would drop even in aggregate terms. Their proportion of total purchases abroad, which was nearly two-thirds in 1956, ought to decline to almost a third by 1966. Conversely, imports of raw materials would rise from 23 to 41 per cent and those of capital goods from 13 to 23 per cent.

In this way, the sectoral projection gives a more factual idea of the way in which the Panamanian economy should be transformed, and to what extent, if economically its development is to be intensive and well-balanced. Hence, it also gives a preliminary idea of what the objectives of economic policy should be. In any case, the projection of economic development provides some indication of the tremendous and complex task implicit in the decision to raise the Panamanian people's level of living.

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INTRODUCTION

In the two previous issues of the *Bulletin,* tables were presented showing many of the principal series maintained by ECLA and used by its economists either directly or as background material for economic studies.

The present issue brings up to date the series relating to national accounts, financial statistics, international trade and prices which were published originally in Volume III, No. 2, and some of the series relating to mining and manufacturing production contained in Volume IV, No. 1. In addition, new tables are presented to cover national income by distributive shares (Table 5) together with the production and consumption of energy in the region (Tables 12 to 18 inclusive). International trade series which were shown originally on a 1950 base have meantime been recalculated at 1955 prices and are presented in this way. No other changes of importance are introduced and it is hoped that the present statistical supplement, along with the tables contained in the previous issues, will serve to inform readers of ECLA publications which are the basic data used by ECLA in its work.

It is once again emphasized that the series are in no way to be considered as a substitute for statistics published officially by any of the countries concerned nor by the United Nations Statistical Office. It is also to be noted that data for the most recent year shown in the tables are to be considered as provisional and in certain cases are estimates based on partial information.

Further details regarding the series are to be found in the *Explanatory Notes* both in this issue and in earlier issues when the respective series were first published.

Table 1

SELECTED ECONOMIC INDICATORS FOR LATIN AMERICA (ANNUAL)

Series	*Unit*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
lation										
1. Total population	Million	155.4	159.2	163.0	166.9	171.0	175.1	179.4	183.8	188.4
2. Annual rate of increase [a]	Per cent	2.4	2.4	2.4	2.4	2.5	2.4	2.5	2.5	2.5
ss domestic product [b]										
3. Value in dollars at 1950 prices	Thousands of millions	39.7	42.2	43.0	44.5	47.2	49.9	51.7	54.6	55.9
4. Indices, total product	1955 = 100	80	84	86	89	94	100	104	109	112
5. Agriculture	1955 = 100	82	85	87	91	95	100	99	102	108
6. Mining	1955 = 100	73	80	85	85	91	100	111	123	118
7. Manufacturing	1955 = 100	77	83	83	86	93	100	104	111	115
8. Construction	1955 = 100	88	94	93	93	98	100	101	113	113
9. Commerce and finance	1955 = 100	78	85	84	87	95	100	103	111	113
10. Transport and communications	1955 = 100	74	78	83	90	93	100	104	109	111
11. Government services	1955 = 100	83	86	90	93	96	100	102	105	106
12. Other services	1955 = 100	83	87	89	91	95	100	109	119	119
ss domestic fixed capital formation										
13. Value in dollars at 1950 prices	Thousands of millions	6.6	7.6	7.7	7.1	7.4	8.4	9.0	10.0 *	9.7
duction indices										
14. Agriculture	1955 = 100	82	85	84	91	94	100	98	105	110
15. Mining	1955 = 100	72	80	85	85	90	100	111	123	118
16. Manufacturing	1955 = 100	77	82	84	85	92	100	106	110	114
ernational trade [c]										
17. Total imports, value	Million dollars	5 407	7 804	7 682	6 540	7 396	7 535	7 924	9 318	8 484
18. Total exports, value	Million dollars	6 586	7 805	7 051	7 593	7 862	7 988	8 502	8 641	8 190
19. Exports as percentage of imports	Per cent	122	100	92	116	106	106	107	93	97
20. Imports from the United States	Million dollars	2 627	3 607	3 341	2 922	3 273	3 226	3 768	4 567	4 051
21. Exports to the United States	Million dollars	2 910	3 348	3 411	3 510	3 338	3 363	3 676	3 769	3 595
22. Imports from Western Europe [d]	Million dollars	1 353	1 966	1 715	1 570	1 857	1 882	1 950	2 352	2 364
23. Exports to Western Europe [d]	Million dollars	1 669	2 181	1 649	1 828	2 035	2 093	2 477	2 829	2 459
24. Total imports, quantum index	1955 = 100	84	104	98	90	100	100	104	122	113
25. Total exports, quantum index	1955 = 100	92	92	89	95	94	100	108	110	109
26. Total imports, unit value index	1955 = 100	85	100	104	97	98	100	101	101	100
27. Total exports, unit value index	1955 = 100	90	106	99	100	105	100	98	98	94
28. Terms-of-trade index	1955 = 100	106	106	96	103	108	100	97	97	95
29. Purchasing power of exports [e]	1955 = 100	96	98	85	98	100	100	105	107	103
ices and finance										
30. Exported foodstuffs and raw materials, price index										
a) Total	1955 = 100	...	105	98	97	109	100	101	101	93
b) Excluyendo petróleo	1955 = 100	...	111	101	98	112	100	102	99	86
31. Gold and foreign exchange holdings [f]	Million dollars	3 170	2 915	2 920	3 210	3 035	3 150	3 655	3 805	...

URCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2.

Increase as compared with previous year.

The indices have been calculated on the basis of values at 1950 prices.

Data are shown on a f.o.b. basis except for "Total imports" (items 17 and 26) which are c.i.f.

Excluding Spain, Finland and Yugoslavia.

Current value index of exports divided by the unit value index of imports.

End of period.

Table 2

SELECTED SHORT-TERM ECONOMIC INDICATORS FOR LATIN AMERICA (QUARTERLY)

Series	Unit	1957				1958				1959	
		I	II	III	IV	I	II	III	IV	I	I
Production											
1. Mining	1955 = 100	121	126	124	121	116	114	119	123	126	12
2. Manufacturing	1955 = 100	104	110	115	114	108	115	120	117	108	..
International trade [a]											
3. Total imports, value	Millions of dollars	2 090	2 318	2 384	2 520	2 057	2 174	2 120	2 133	...	..
4. Total exports, value	Millions of dollars	2 279	2 164	2 090	2 108	2 012	2 011	2 005	2 162	...	..
5. Exports as percentage of imports	Percent	109	93	88	84	98	92	95	101	...	..
6. Imports from the United States	Millions of dollars	1 037	1 124	1 110	1 296	1 041	1 017	972	1 021	842	..
7. Exports to the United States	Millions of dollars	1 030	900	882	957	932	909	817	937	976	..
8. Imports from Western Europe [b]	Millions of dollars	544	548	584	678	573	552	582	657	526	..
9. Exports to Western Europe [b]	Millions of dollars	743	761	698	628	621	622	603	612	596	..
10. Total imports, quantum index	1955 = 100	114	108	107	112	107	106	111	111	...	..
11. Total exports, quantum index	1955 = 100	100	101	98	94	94	95	91	97	...	..
12. Total exports, unit value index	1955 = 100	104	102	98	97	95 *	94	92	90 *	86	..
Prices and finance											
13. Exported foodstuffs and raw materials, price index	1955 = 100	103	102	95	92	90 *	88	85	83 *	79	..

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2.

[a] Data are shown on a f.o.b. basis except for total imports (item 3) which are c.i.f.

[b] Excluding Spain, Finland and Yugoslavia.

Table 3

TOTAL POPULATION

(Mid-year estimates: thousands of persons)

Country	1948	1950	1951	1952	1953	1954	1955	1956	1957	195
Central America and Mexico										
Costa Rica	756	800	825	850	884	915	951	988	1 033	1 07
Cuba	5 268 [a]	5 508 [a]	5 621 [a]	5 725 [a]	5 829	6 005	6 131	6 261	6 410	...
El Salvador	1 811	1 868	1 920	1 986	2 054	2 122	2 193	2 268	2 350	2 43
Guatemala	2 641	2 805	2 892	2 981	3 058	3 159	3 258	3 349	3 451	3 54
Haiti	...	3 112	3 150	3 188	3 227	3 265	3 305	3 344	3 384	3 42
Honduras	1 353	1 428	1 470	1 513	1 556	1 608	1 660	1 712	1 769	1 82
Mexico	24 461	25 826	26 544	27 287	28 056	28 853	29 679	30 538	31 426	32 34
Nicaragua	1 001	1 060	1 093	1 129	1 166	1 204	1 245	1 288	1 333	1 37
Dominican Republic	2 031	2 131	2 204	2 281	2 360	2 441	2 526	2 613	2 704	2 79
Panama	758	797	817	840	864	889	914	940	967	99
Total [b]	*43 117*	*45 335*	*46 536*	*47 780*	*49 054*	*50 461*	*51 862*	*53 301*	*54 827*	*56 373*
South America, tropical										
Bolivia	2 950	3 019	3 054	3 089	3 125	3 162	3 198	3 235	3 273	3 311
Brazil	49 590	51 976	53 212	54 477	55 772	57 098	58 456	59 846	61 268	62 72
Colombia	10 845	11 334	11 589	11 847	12 111	12 381	12 657	12 939	13 227	13 522
Ecuador	3 017	3 197	3 294	3 393	3 502	3 567	3 691	3 800	3 890	4 007
Peru	8 191	8 521	8 690	8 864	9 035	9 213	9 396	9 651	9 923	10 213
Venezuela	4 686	4 974	5 125	5 280	5 440	5 608	5 778	5 953	6 134	6 320
Total	*79 279*	*83 021*	*84 964*	*86 950*	*88 985*	*91 029*	*93 176*	*95 424*	*97 715*	*100 098*
South America, temperate										
Argentina	16 306	17 189	17 635	18 040	18 400	18 756	19 122	19 493	19 868	20 256
Chile	5 854	6 073	6 185	6 295	6 437	6 597	6 761	6 944	7 121	7 298
Paraguay	1 335	1 397	1 429	1 462	1 496	1 530	1 565	1 601	1 638	1 677
Uruguay	2 332	2 407	2 449	2 495	2 535	2 579	2 615	2 650	2 679	...
Total [b]	*25 827*	*27 066*	*27 698*	*28 292*	*28 868*	*29 462*	*30 063*	*30 688*	*31 306*	*31 948*
Grand total [b]	*148 223*	*155 422*	*159 198*	*163 022*	*166 907*	*170 952*	*175 101*	*179 413*	*183 848*	*188 419*

SOURCE: United Nations, *Monthly Bulletin of Statistics.*

[a] Estimates for these years have not been revised according to data of the latest census.

[b] Including estimates for data not available.

Table 4

EXPENDITURE ON GROSS NATIONAL PRODUCT

(Values at current market prices)

Type of expenditure	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
Argentina *(Thousands of millions of pesos)*									
ate consumption expenditure	40.57	58.68	67.94	77.27	82.27	101.07	123.62	160.74	216.26
eral Government consumption xpenditure	7.72	10.54	13.28	15.07	18.07	20.44	25.63	28.10	43.50
ss fixed capital formation	14.26	19.30	20.17	19.72	22.22	26.47	35.26	50.91	65.61
Construction	9.45	11.29	12.09	11.61	13.83	15.56	19.70	24.77	33.73
ransport equipment	1.85	3.68	3.86	4.46	4.39	5.14	8.13	15.41	15.27
achinery and equipment	2.96	4.33	4.22	3.65	4.00	5.76	7.43	10.73	16.61
ease in stocks	— 0.68	+ 1.73	+ 2.18	— 1.75	+ 1.84	+ 0.53	— 1.32	— 1.70	— 1.21
orts less imports[a]	+ 0.42	— 2.46	— 3.32	+ 1.80	+ 0.89	— 1.78	— 2.52	— 7.62	— 6.36
xpenditure on gross domestic product	*62.29*	*87.79*	*100.25*	*112.11*	*125.27*	*146.73*	*180.67*	*230.43*	*318.40*
factor income from rest of he world	— 0.04	— 0.28	— 0.05	— 0.06	— 0.10	— 0.26	— 0.65	— 0.61	— 1.29
xpenditure on gross national product	*62.25*	*87.51*	*100.20*	*112.05*	*125.17*	*146.47*	*180.02*	*229.84*	*317.11*
Brazil *(Thousands of millions of cruzeiros)*									
ate consumption expenditure.	194.3	217.8	244.4	312.3	398.8	504.7	632.3	754.5	...
eral Government consumption expenditure	28.5	34.0	39.8	56 8	63.5	80.5	114.3	127.7	...
oss fixed capital formation	34.0	56.1	65.3	54.8	77.6	99.0	123.1	136.0	158.9
rease in stocks	— 4.7	+ 8.6	+ 17.0	+ 5.3	+ 22.6	+ 8.1	+ 10.5	+ 38.7	+ 46.1
orts of goods and services	26.0	33.9	27.5	33.0	47.5	61.1	70.4	74.2	...
ports of goods and services	22.3	41.0	40.0	28.8	49.6	56.3	62.8	81.8	...
Expenditure on gross domestic product	*255.8*	*309.4*	*354.0*	*433.4*	*560.4*	*697.1*	*887.8*	*1 049.3*	*1.269.9*
t factor income from rest of the world	— 1.8	— 1.6	— 0.7	— 3.6	— 4.6	— 5.8	— 6.9	— 6.6	— 9.3
Expenditure on gross national product	*254.0*	*307.8*	*353.3*	*429.8*	*555.8*	*691.3*	*880.9*	*1 042.7*	*1 260.6*
Costa Rica *(Millions of colones)*									
vate consumption expenditure.	1 006.5	1 076.7	1 135.8	1 239.4	1 333.4	1 483.8	1 542.3	1 676.9	...
neral Government consumption expenditure	93.3	107.9	125.1	126.3	158.4	193.2	251.7	256.3	...
oss fixed capital formation	220.2	329.1	279.1	344.0	359.2	394.1	417.8	434.8	...
rease in stocks	+ 19.1	+ 22.0	+ 30.8	+ 25.3	+ 29.7	+ 31.4	+ 37.6	+ 32.4	...
ports of goods and services	348.1	387.8	467.0	505.2	537.4	531.4	476.9	596.4	...
ports of goods and services	353.1	391.3	461.8	500.9	538.7	582.6	613.5	694.1	...
Expenditure on gross domestic product	*1 334.1*	*1 442.2*	*1 576.0*	*1 739.3*	*1 879.4*	*2 051.3*	*2 112.8*	*2 302.7*	...
t factor income from rest of the world	— 29.8	— 33.0	— 60.0	— 40.4	— 33.2	— 19.6	+ 9.0	— 15.5	...
Expenditure on gross national product	*1 304.3*	*1 409.2*	*1 516.0*	*1 698.9*	*1 846.2*	*2 031.7*	*2 121.8*	*2 287.2*	...
Chile[b] *(Thousand of millions of pesos)*									
ivate consumption expenditure.	121.59	151.72	218.64	277.65	449.20	776.77	1 267.01	1 769.83	2 420.83
eneral Government consumption expenditure	17.93	21.69	32.80	41.30	67.74	127.92	182.78	260.02	283.36
ross capital formation[c]	17.53	20.26	22.71	44.24	36.93	83.33	164.53	227.97	300.75
xports of goods and services	16.82	24.60	33.24	29.92	42.22	94.78	200.87	356.71	270.40
nports of goods and services	14.07	23.50	29.61	30.36	38.11	76.96	174.43	368.44	416.72
Expenditure on gross domestic product	*159.79*	*194.77*	*277.78*	*362.75*	*557.98*	*1 005.83*	*1 640.76*	*2 246.10*	*2 858.62*
et factor income from rest of the world	— 2.49	— 3.77	— 3.96	— 2.62	— 3.88	— 13.04	— 34.97	— 62.17	— 40.24
Expenditure on gross national product	*157.30*	*191.00*	*273.82*	*360.13*	*554.10*	*992.79*	*1 605.79*	*2 183.93*	*2 818.38*

(Continued)

Table 4 *(Continued)*

EXPENDITURE ON GROSS NATIONAL PRODUCT

(Values at current market prices)

Type of expenditure	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
				ECUADOR *(Millions of sucres)*					
Private consumption expenditure	5 017	5 672	6 343	6 654	7 372	7 850	8 125	8 530	...
General Government consumption expenditure	997	1 050	1 123	1 254	1 334	1 374	1 367	1 430	...
Gross fixed capital formation	617	855	810	1 002	1 382	1 538	1 560	1 570	...
Construction	324	340	415	464	657	830	842	847	...
Machinery and equipment	293	515	395	538	725	708	718	723	...
Increase in stocks	+ 166	+ 149	+ 98	+ 261	+ 249	+ 268	+ 220	+ 250	...
Exports of goods and services	1 390	1 229	1 708	1 716	2 153	2 070	2 097	2 381	...
Imports of goods and services	943	1 194	1 228	1 538	2 043	2 051	2 103	2 154	...
Expenditure on gross domestic product	*7 245*	*7 761*	*8 854*	*9 349*	*10 447*	*11 049*	*11 266*	*12 007*	...
Net factor income from rest of the world	− 177	− 147	− 306	− 286	− 273	− 308	− 369	− 356	...
Expenditure on gross national product	*7 068*	*7 614*	*8 548*	*9 063*	*10 174*	*10 741*	*10 897*	*11 651*	...
				GUATEMALA *(Millions of quetzales)*					
Private consumption expenditure	314.3	335.9	335.1	364.9	382.5	419.8	469.3	513.6	...
General Government consumption expenditure	53.2	41.9	57.5	53.7	59.7	61.1	70.2	81.7	...
Gross capital formation[c]	40.1	45.4	33.0	41.4	45.2	60.0	93.6	97.5	...
Exports of goods and services	83.9	89.3	99.4	112.3	108.4	112.5	132.8	126.3	...
Imports of goods and services	76.7	89.7	83.9	90.7	101.2	111.6	147.6	159.9	...
Expenditure on gross domestic product	*414.8*	*422.8*	*441.1*	*481.6*	*494.6*	*541.8*	*618.3*	*659.2*	...
Net factor income from rest of the world	− 4.0	+ 1.7	+ 1.8	− 17.3	− 9.3	− 6.2	− 5.4	− 6.9	...
Expenditure on gross national product	*410.8*	*424.5*	*442.9*	*464.3*	*485.3*	*535.6*	*612.9*	*652.3*	...
				HONDURAS *(Millions of lempiras)*					
Private consumption expenditure	326.7	360.4	376.9	442.0	450.1	504.9	511.0	537.2	...
General Government consumption expenditure	26.8	31.7	34.0	38.7	47.5	47.2	54.6	56.0	...
Gross fixed capital formation	48.8	62.2	83.2	95.0	73.2	82.8	92.0	92.6	...
Residential buildings	13.9	16.4	18.5	18.6	17.2	22.6	...	...	...
Non-residential buildings	9.5	13.8	13.6	21.4	10.9	13.3	...	...	...
Other construction and works	11.6	15.0	21.7	28.9	24.5	25.4	...	...	...
Machinery and equipment	13.8	17.0	29.4	26.1	20.6	21.5	...	...	...
Increase in stocks	+ 7.4	+ 13.9	+ 11.6	+ 1.6	+ 3.6	+ 5.6	+ 5.4	+ 5.5	...
Exports of goods and services	124.2	142.9	138.9	148.7	119.5	113.0	159.0	165.0	...
Imports of goods and services	82.1	108.7	130.6	130.9	125.9	129.9	147.2	160.5	...
Expenditure on gross domestic product	*451.8*	*502.4*	*514.0*	*595.1*	*568.1*	*623.6*	*674.8*	*695.8*	...
Net factor income from rest of the world	− 41.4	− 37.5	− 26.2	− 27.5	+ 8.2	+ 4.4	− 22.2	− 8.0	...
Expenditure on gross national product	*410.4*	*464.9*	*487.8*	*576.6*	*576.3*	*628.0*	*652.6*	*687.8*	...
				MEXICO *(Thousands of millions of pesos)*					
Private consumption expenditure	34.11[c]	37.70	46.93	46.28	50.66	65.02	73.91	82.79	...
General Government consumption expenditure	2.12	2.00	3.39	3.46	3.83	3.31	3.97	4.15	...
Gross capital formation	5.94	6.80	8.17	7.54	9.43	11.83	13.74	15.51	...
Increase in stocks	...	—	—	− 0.22	+ 2.86	+ 2.44	+ 2.46	+ 2.60	...
Exports of goods and services[d]	+ 0.87	8.20	8.77	8.37	11.41	16.28	18.08	17.53	...
Imports of goods and services[d]		9.20	8.96	9.12	11.70	14.88	18.15	19.57	...
Expenditure on gross domestic product	*43.04*	*45.50*	*58.30*	*56.31*	*66.49*	*84.00*	*94.01*	*103.01*	...

(Continued)

Table 4 *(Continued)*

EXPENDITURE ON GROSS NATIONAL PRODUCT

(Values at current market prices)

Type of expenditure	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
				PANAMA *(Millions of balboas)*					
ivate consumption expenditure.	170.4	186.9	198.8	199.8	207.1	205.9	214.5	...	...
neral Government consumption expenditure	31.0	29.3	29.6	32.0	34.7	34.9	40.7	...	...
oss fixed capital formation	19.3	21.4	24.1	23.2	27.2	32.8	43.6	...	...
Construction	9.8	11.7	12.8	11.2	14.1	22.5	28.5	...	...
Transport and communication equipment	4.3	4.2	4.9	4.9	5.5	2.0	3.4	...	...
Machinery and other equipment	5.2	5.5	6.4	7.1	7.6	8.3	11.7	...	...
crease in stocks	+ 8.2	+ 6.9	+ 14.6	+ 0.5	+ 0.8	— 0.7	+ 4.5	...	...
ports of goods and services	67.9	67.2	78.0	84.7	103.8	119.1	121.6	...	...
ports of goods and services	90.5	98.2	117.3	112.3	126.9	131.9	144.2	...	...
Expenditure on gross domestic product	*206.3*	*213.5*	*227.8*	*227.9*	*246.7*	*260.1*	*280.7*	...	...
t factor income from rest of the world	+ 12.7	+ 13.5	+ 16.1	+ 15.5	+ 10.0	+ 11.3	+ 17.6	...	...
Expenditure on gross national product	*219.0*	*227.0*	*243.9*	*243.4*	*256.7*	*271.4*	*298.3*	...	...
				DOMINICAN REPUBLIC *(Millions of pesos)*					
ivate consumption expenditure.	239.8	261.7	284.4	316.3	319.1	355.0	387.9	414.1	...
eneral Government consumption expenditure	42.0	44.8	50.3	49.7	50.9	63.3	81.6	96.6	...
oss capital formation [c]	53.2	46.4	83.4	67.5	79.8	112.1	108.8	111.6	...
oods and services: exports less imports [d]	+ 13.8	+ 19.1	— 4.5	+ 1.2	+ 21.4	— 8.8	— 4.5	+ 23.0	...
Expenditure on gross national product	*348.8*	*372.0*	*413.6*	*434.7*	*471.2*	*521.6*	*573.8*	*645.3*	...
				VENEZUELA *(Millions of bolivares)*					
ivate consumption expenditure.	6 175	6 515	7 587	8 493	9 685	9 943	11 199	12 179	16 482
eneral Government consumption expenditure	1 209	1 358	1 438	1 500	1 648	1 791	1 920	2 321	2 916
ross fixed capital formation	2 504	2 860	— 3 051	3 034	3 022	3 634	4 162	6 064	4 727
crease in stocks	+ 100	+ 112	+ 405	+ 41	+ 79	+ 221	+ 225	+ 302	+ 319
ports of goods and services	3 619	4 182	4 512	4 709	5 197	5 914	6 905	8 521	7 288
ports of goods and services	2 707	2 876	3 406	3 644	3 873	4 085	5 058	6 955	7 205
Expenditure on gross domestic product	*10 900*	*12 152*	*13 587*	*14 133*	*15 758*	*17 418*	*19 353*	*22 433*	*24 527*

URCES AND METHODS: See *Explanatory Notes*.

Data refer to trade in goods and services.

Figures for 1955-58 are preliminary.

Includes increase in stocks.

Includes inflow or outflow of income from the rest of the world.

Table 5

NATIONAL INCOME BY DISTRIBUTIVE SHARES

(*Values at current prices*)

Type of compensation	1945	1948	1950	1951	1952	1953	1954	1955	1956	1957	1958
ARGENTINA (*Thousands of millions of pesos*)											
Compensation of employees	7.51	19.82	31.65	41.13	50.58	56.08	64.58	72.92	86.40	105.64	153.60
Income from entrepreneurs' activities	8.58	17.99	20.34	31.46	32.28	38.58	41.83	52.93	65.16	83.49	116.10
Net factor income payments from the rest of the world	– 0.43	– 0.04	– 0.04	– 0.28	– 0.05	– 0.06	– 0.10	– 0.26	– 0.65	– 0.61	– 1.29
National income	15.66	37.77	51.95	72.31	82.81	94.60	106.31	125.59	150.91	188.52	268.41
BRAZIL (*Thousands of millions of cruzeiros*)											
Non-agricultural sector	...	113.6	152.9	183.6	208.1	255.5	319.7	405.9	531.5	615.5	715.4
Compensation of employees	...	66.4	91.8	105.0	124.9	150.9	188.7	254.4	346.5	405.3	468.6
Public administration	...	11.6	16.3	19.0	21.5	27.0	30.0	42.1	63.9	71.2	84.3
Other activities	...	54.8	75.5	86.0	103.4	123.9	158.7	212.3	282.6	334.1	384.3
Income from entrepreneurs' activities	...	27.6	31.7	37.2	42.3	49.1	57.6	70.4	90.5	107.0	125.6
Income from property	...	19.6	29.4	41.4	40.9	55.5	73.4	81.1	94.5	103.2	121.2
Distributed profits	...	5.2	7.0	17.1	7.0	11.8	13.5	10.4	3.8	8.0	...
Undistributed profits	...	5.3	9.2	8.2	14.0	19.4	31.0	34.5	44.3	43.2	...
Direct taxes payed by enterprises	...	2.3	2.9	3.9	5.5	6.4	7.8	11.4	14.7	16.2	...
Interest and rent	...	6.8	10.3	12.2	14.4	17.9	21.1	24.8	31.7	35.8	...
Agricultural sector	...	44.8	61.4	70.9	84.9	104.7	135.8	172.0	199.3	243.0	270.4
Net factor income payments from the rest of the world	...	– 1.9	– 1.8	– 1.6	– 0.7	– 3.6	– 4.6	– 5.8	– 6.9	– 6.6	– 9.3
National income	...	156.5	212.5	252.9	292.3	356.6	450.9	572.1	723.9	851.9	976.5
COLOMBIA (*Millions of pesos*)											
Compensation of employees	1 205	2 119	2 912	3 162	3 399	3 822	4 144	4 534	5 120	5 796	...
Income from entrepreneurs' activities	658	1 142	1 769	1 954	2 286	2 717	3 016	3 102	3 577	4 111	...
Income from property	472	796	1 081	1 278	1 364	1 393	1 715	1 991	2 026	2 147	...
Rent	315	537	709	815	845	853	877	911	972	1 051	...
Interest	18	39	51	60	68	78	117	134	168	191	...
Profits	139	220	321	403	451	462	721	946	886	905	...
National income	2 335	4 057	5 762	6 394	7 049	7 932	8 875	9 627	10 723	12 054	...
CHILE (*Thousands of millions of pesos*)											
Compensation of employees	19.01	36.22	58.13	70.87	94.85	130.99	212.59	377.18	544.78	...	...
Salaries	7.28	13.78	24.82	30.96	45.18	57.19	96.29	180.28	254.79	...	...
Wages	10.62	19.64	28.97	34.49	43.21	62.31	97.90	162.53	232.98	...	...
Employees' contributions to social security	1.11	2.80	4.34	5.42	6.46	11.49	18.40	34.37	57.01	...	...
Income from entrepreneurs' activities	10.55	19.16	29.70	39.22	52.05	68.00	107.36	195.25	295.83	...	...
Income from property	15.09	30.26	40.05	43.79	62.13	87.10	136.98	262.63	432.62	...	...
Rent	4.92	8.79	13.19	16.72	21.19	27.18	49.86	84.46	144.51	...	...
Interest	0.47	1.24	1.31	1.51	1.95	2.51	3.11	5.80	9.02	...	...
Profits	9.70	20.23	25.55	25.56	38.99	57.41	84.01	172.37	279.09	...	...
National income	44.65	85.64	131.23[a]	157.51[a]	219.40[a]	294.71[a]	464.94[a]	833.07[a]	1 295.20[a]	...	...

(*Continued*)

Table 5 *(Continued)*

NATIONAL INCOME BY DISTRIBUTIVE SHARES

(Values at current prices)

Type of compensation	1945	1948	1950	1951	1952	1953	1954	1955	1956	1957	1958
			PERU *(Millions of soles)*								
Compensation of employees	1 651	2 727	4 465	5 211	6 153	6 639	7 007	7 954	8 831	...	...
Salaries in private sector	563	906	1 325	1 483	1 865	2 002	2 137	2 306	2 514	...	...
Wages in private sector	727	1 250	2 095	2 303	2 546	2 675	2 885	3 134	3 436	...	...
Government wages and salaries	361	571	1 045	1 425	1 742	1 962	1 985	2 514	2 881	...	...
Income from entrepreneurs' activities	1 161	3 029	4 908	5 798	6 305	6 969	7 379	8 127	7 808	...	...
Income from property	835	1 474	2 665	3 514	3 684	3 537	4 304	4 714	5 423	...	...
Rent	187	270	454	577	893	961	1 025	1 143	1 152	...	...
Interest	73	102	196	281	384	479	545	636	810	...	...
Profits	593	1 102	2 015	2 656	2 407	2 097	2 734	2 935	3 461	...	...
National income	3 666	7 230	12 038	14 524	16 142	17 146	18 690	20 794	22 062	...	...

SOURCES AND METHODS: See *Explanatory Notes*.

a The total national income differs from the sum of the various incomes because this total has been revised without publishing detailed data.

Table 6

GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN

(Values at 1950 market prices)

Sector	1950	1951	1952	1953	1954	1955	1956	1957	1958
ARGENTINA *(Thousands of millions of pesos)*									
Agriculture, forestry, fishing	9.72	10.34	9.15	11.73	11.33	11.77	11.54	11.74	11.91
Mining and quarrying	0.62	0.69	0.68	0.72	0.74	0.77	0.80	0.83	0.89
Manufacturing	14.58	14.94	13.85	13.56	14.72	16.06	15.82	16.37	17.14
Construction	4.61	4.53	3.85	3.66	3.99	4.17	3.97	4.71	4.81
Trade, transport and communications	16.88	17.24	15.48	16.12	16.63	17.76	17.71	18.69	19.26
Rent and finances	4.49	4.63	4.80	4.87	5.00	5.19	5.29	5.39	5.50
Other services[a] [b]	11.40	11.85	12.18	12.63	12.99	13.18	13.65	13.78	13.74
Total	*62.30*	*64.22*	*59.99*	*63.29*	*65.40*	*68.90*	*68.78*	*71.51*	*73.25*
BRAZIL *(Thousands of millions of cruzeiros)*									
Agriculture, forestry, fishing	73.4	73.8	79.9	78.9	86.0	90.8	89.2	96.0	102.0
Mining and quarrying	1.5	1.7	1.7	1.8	1.8	1.9	2.2	2.8	3.5
Manufacturing	47.3	51.8	54.4	57.3	62.9	66.6	71.7	72.4	77.0
Construction	5.0	6.1	8.1	8.2	7.8	7.2	7.2	7.5	7.1
Transport and communications	25.8	28.0	30.3	33.4	36.1	37.2	38.5	39.7	40.6
Trade and finance	37.3	41.6	43.6	43.8	49.0	49.9	51.8	54.5	55.0
Government	19.4	19.9	20.4	20.8	21.3	21.8	22.4	22.9	23.4
Other services[a]	46.1	48.0	49.5	50.3	54.0	56.5	58.9	61.6	65.0
Total	*255.8*	*270.9*	*287.9*	*295.6*	*318.9*	*331.9*	*341.9*	*357.4*	*373.6*
COLOMBIA *(Millions of pesos)*									
Agriculture, forestry, fishing	2 505	2 591	2 877	2 863	2 870	3 000	2 840	2 860	3 000
Mining and quarrying	246	274	280	286	285	280	315	315	320
Manufacturing	1 307	1 376	1 497	1 624	1 700	1 800	1 900	1 870	1 900
Construction	257	281	315	369	430	390	495	490	495
Transport and communications	397	442	491	574	700	820	880	950	955
Trade and finance	527	548	598	642	660	700	680	650	660
Government	367	385	415	430	420	500	530	520	520
Other services[a]	830	867	928	979	1 000	1 100	1 200	1 260	1 290
Total	*6 436*	*6 764*	*7 401*	*7 767*	*8 065*	*8 590*	*8 840*	*8 915*	*9 140*
CHILE *(Thousands of millions of pesos)*									
Agriculture, forestry, fishing	27.00	27.06	26.96	28.31	28.97	30.30	31.22	30.87	33.76
Mining and quarrying	9.11	9.69	9.56	8.70	9.04	10.00	10.33	10.59	10.00
Manufacturing	26.68	28.90	31.28	33.70	34.90	34.26	34.50	34.93	34.40
Construction	4.47	4.12	4.06	5.43	5.32	5.30	3.28	2.39	2.41
Transport and communications	10.71	10.37	12.79	12.55	13.37	11.28	12.19	13.13	13.45
Trade and finance	29.88	31.88	33.26	34.93	36.13	36.72	36.54	38.07	38.28
Government	15.98	14.94	19.03	18.68	18.68	21.72	19.48	20.60	21.06
Other services[a]	35.95	36.58	36.74	38.74	36.80	36.22	39.26	42.71	43.78
Total	*159.78*	*163.54*	*173.68*	*181.04*	*183.21*	*185.80*	*186.80*	*193.29*	*197.14*
ECUADOR *(Millions of sucres)*									
Agriculture, forestry, fishing	3 107	3 143	3 745	3 727	3 907	3 800	3 828	4 180	4 160
Mining and quarrying	142	135	142	139	150	165	161	151	150
Manufacturing	1 033	1 068	1 134	1 195	1 331	1 320	1 366	1 478	1 500
Construction	202	195	231	253	273	285	290	310	315
Transport and communications	354	391	425	438	475	560	600	640	650
Trade and finance	737	744	856	869	945	920	950	1 022	1 015
Government	443	433	456	496	529	570	580	590	600
Other services[a]	1 227	1 339	1 240	1 374	1 570	1 807	1 988	1 900	1 960
Total	*7 245*	*7 448*	*8 229*	*8 491*	*9 180*	*9 427*	*9 763*	*10 271*	*10 350*
HONDURAS *(Millions of lempiras)*									
Agriculture, forestry, fishing	251.6	259.4	254.4	263.9	240.0	243.8	283.8	292.4	327.8
Mining and quarrying	6.8	6.9	8.3	11.0	10.5	6.2	4.5	5.1	5.1
Manufacturing	37.5	41.9	47.0	54.1	49.7	55.7	61.3	64.4	66.3
Construction	18.1	21.3	25.5	29.5	23.1	23.8	22.8	24.4	25.0
Transport and communications	25.8	27.5	29.5	30.9	31.2	32.9	34.5	36.7	37.0
Trade and finance	50.6	52.6	55.8	61.4	61.3	64.2	63.8	66.8	70.0
Government	11.3	13.3	13.6	15.7	16.7	17.1	20.0	20.1	20.1
Other services[a]	50.1	49.3	47.8	49.5	48.7	51.9	42.3	47.5	49.0
Total	*451.8*	*472.2*	*481.9*	*516.0*	*481.2*	*495.6*	*533.0*	*557.4*	*600.3*

(Continued)

Table 6 (*Continued*)

GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN

(*Values at 1950 market prices*)

Sector	1950	1951	1952	1953	1954	1955	1956	1957	1958
				MEXICO (*Millions of pesos*)					
Agriculture, forestry, fishing	8.92	9.10	8.74	9.76	11.38	12.80	12.32	12.66	14.37
Mining and quarrying [c]	1.39	1.30	1.46	1.43	1.36	1.58	1.55	1.65	1.62
Petroleum sector	0.74	0.80	0.82	0.85	0.94	0.99	1.07	1.20	1.35
Manufacturing [c]	8.66	10.27	9.87	9.94	10.46	11.60	12.61	13.20	13.62
Construction	0.91	1.07	1.15	1.03	1.00	1.08	1.16	1.30	1.28
Transport and communications	2.04	2.06	2.41	2.49	2.52	2.81	2.98	3.18	3.28
Trade and finance	14.59	16.88	16.46	17.24	18.32	20.27	21.46	22.32	22.77
Government	2.38	2.62	2.64	2.81	3.17	3.06	3.46	3.60	3.60
Other services [a]	3.68	3.71	3.81	4.03	4.53	4.72	4.96	5.20	5.45
Total	*43.31*	*47.81*	*47.36*	*49.58*	*53.68*	*58.91*	*61.57*	*64.31*	*67.34*
				PERU (*Thousands of millions of pesos*)					
Agriculture, forestry, fishing	5.63	5.96	6.09	6.56	6.84	6.84	6.63	6.70	6.56
Mining and quarrying	1.06	1.21	1.27	1.43	1.57	1.55	1.56	1.33	1.09
Manufacturing	2.69	2.92	3.08	3.37	3.72	3.92	4.03	4.15	4.15
Construction	0.44	0.59	0.65	0.85	0.75	0.84	0.90	0.95	0.98
Transport and communications	1.01	1.10	1.16	1.36	1.43	1.57	1.67	1.77	1.83
Trade and finance	2.48	3.89	3.03	3.37	3.49	3.72	4.10	4.61	4.76
Government	1.64	1.66	1.66	1.70	1.73	1.76	1.88	1.92	2.00
Other services [a]	2.22	2.28	2.33	2.42	2.52	2.61	2.64	2.66	2.61
Total	*17.17*	*18.61*	*19.27*	*21.06*	*22.05*	*22.81*	*23.41*	*24.09*	*23.98*
				VENEZUELA (*Millions of bolivares*)					
Agriculture, forestry, fishing	1 035	1 162	1 221	1 267	1 237	1 295	1 419	1 476	1 559
Mining and quarrying [c]	22	44	70	75	158	229	309	426	415
Petroleum sector	3 444	3 930	4 174	4 054	4 336	4 946	5 672	6 361	5 996
Manufacturing [c]	534	609	739	863	1 023	1 178	1 269	1 439	1 564
Construction	447	532	517	475	559	667	756	891	873
Transport and communications	578	564	650	758	802	893	873	903	1 006
Trade and finance	1 929	2 214	2 330	2 560	2 992	3 198	3 526	4 394	4 250
Government	1 145	1 277	1 380	1 391	1 490	1 621	1 712	1 975	1 890
Other services [a]	1 766	1 835	1 997	2 273	2 475	2 780	3 047	3 626	3 905
Total	*10 900*	*12 167*	*13 078*	*13 716*	*15 072*	*16 807*	*18 583*	*21 491*	*21 458*

SOURCES AND METHODS: See *Explanatory Notes.*

[a] Including public utilities and sanitary services.

[b] Including Government services.

[c] Excluding the extraction and the processing of petroleum, respectively.

Table 7

RATE OF GROSS DOMESTIC FIXED CAPITAL FORMATION

(*As percentage of gross domestic product*)[a]

Countries	1950	1951	1952	1953	1954	1955	1956	1957	1958
Latin America: Total	*16.5*	*18.1*	*17.9*	*15.9*	*15.8*	*16.9*	*17.3*	*18.4*	*17.4*
Of which:									
Argentina	22.9	23.0	22.2	20.1	20.2	21.2	20.8	23.8	22.8
Bolivia	11.3	15.6	15.8	10.1	13.5	20.5	20.5	20.0	...
Brazil	13.3	17.2	17.2	12.2	12.4	13.4	13.5	12.8	13.1
Colombia	17.7	18.0	18.2	22.9	24.4	23.6	24.0	21.6	21.9
Costa Rica	17.9	19.3	21.5	24.8	25.1	24.5	26.4	25.3	24.9
Cuba	11.0	13.2	13.0	11.6	13.1	17.5	20.1	18.7	19.5
Chile	8.9	9.1	9.2	9.7	9.2	10.9	9.7	9.9	8.3
Ecuador	8.6	11.1	9.2	10.6	13.2	13.9	13.7	13.1	13.1
Guatemala	9.6	10.1	6.9	8.1	9.2	10.1	13.1	12.5	13.0
Mexico	13.7	15.7	16.4	14.2	13.5	13.7	15.1	15.5	14.8
Peru	15.7	20.1	21.2	19.9	17.6	20.6	22.0	21.3	20.8
Dominican Republic	15.2	12.1	19.2	14.6	16.8	21.4	21.9	22.0	...
Venezuela	23.0	22.1	21.7	21.2	18.7	20.2	21.3	27.1	21.8

SOURCES AND METHODS: See *Explanatory Notes.*

[a] Based on values at 1950 prices.

Table 8

GOLD AND FOREIGN EXCHANGE RESERVES[a]

(Millions of dollars)

Country	1957		1958				1959	
	September	December	March	June	September	December	March	June
			(a) GOLD					
Argentina	166	126	126	125	144	74 [b]	...	...
Bolivia	2	1	1	1	1	1	1	1
Brazil	324	324	324	325	325	325	326	326 [c]
Colombia	58	62	65	67	70	72	73	74
Chile	40	40	40	40	40	40	40	40
Ecuador	22	22	22	22	22	22	22	20
Peru	35	28	20	20	20	19	19	19
Uruguay	183	180	180	180	180	180	180	180 [c]
Venezuela	719	719	719	720	720	720	720	720 [c]
Total	*1 549*	*1 502*	*1 497*	*1 500*	*1 512*	*1 463*	...	...
Costa Rica	2	2	2	2	2	2	2	2
Cuba	136	136	136	136	135	80	...	...
El Salvador	31	31	31	31	31	31	31	31
Guatemala	27	27	27	27	27	27	27	...
Honduras	—	—	—	—	—	—	—	—
Mexico	182	180	158	153	147	143	...	...
Nicaragua	1	1	1	1	1	1	1	1
Panama	—	—	—	—	—	—	—	—
Dominican Republic	11	11	11	11	11	12	12	12
Total	*391*	*388*	*368*	*360*	*354*	*296*	...	...
Total Latin America	*1 940*	*1 890*	*1 865*	*1 860*	*1 866*	*1 759*	...	...
			(b) FOREIGN EXCHANGE					
Argentina	206	185	...	...	...	...	...	...
Bolivia	...	...	...	...	...	...	...	...
Brazil	122	150	39	120	152	140	152	123 [c]
Colombia	74	83	52	42	68	89	108	119
Chile	13	6	10	7	9	19	29	60
Ecuador	18	17	10	10	15	14	13	14
Peru	8	6	9	7	8	12	10	10
Uruguay	—	—	—	—	—	—	—	— [c]
Venezuela	704	726	518	585	355	331	...	...
Total	*1 145*	*1 175*	...	...	...	...	...	...
Costa Rica	13	10	14	20	14	17	22	22
Cuba	370	305	301	289	275	293	...	...
El Salvador	19	8	14	16	6	6	7	13
Guatemala	41	47	44	42	28	21	22	...
Honduras	18	16	17	13	10	8	11	15 [c]
Mexico	240	272	239	177	191	225	...	...
Nicaragua	10	10	21	23	11	6	15	20
Panama	37	29	32	38	42	48	52	46
Dominican Republic	26	34	28	30	32	33	33	36
Total	*780*	*740*	*720*	*648*	*609*	*657*	...	...
Grand total Latin America	*1 925*	*1 915*	...	...	...	...	...	...

SOURCE: International Financial Statistics.

[a] End of month indicated.

[b] November.

[c] May.

Table 3

CAPACITY FOR PAYMENTS AND CAPACITY TO IMPORT, BY COUNTRIES

(*Millions of dollars*)

Item / Country	Year	Argentina	Bolivia	Brazil	Colombia	Costa Rica	Cuba	Chile	Ecuador	El Salvador	Guatemala	Haiti	Honduras	Mexico	Nicaragua	Panama	Paraguay	Peru	Dominican Rep.	Uruguay	Venezuela	Total[a]
A Exports of goods and services.	1953	1 198	67	1 652	670	91	708	373	111	100	98	44	74	952	59	93	40	267	116	296	1 538	8 547
	1954	1 134	77	1 675	709	98	609	376	143	107	106	63	60	1 026	68	136	42	288	135	279	1 721	8 852
	1955	1 065	91	1 537	638	89	655	519	132	111	115	45	54	1 191	87	144	41	314	130	202	1 962	9 122
	1956	1 074	83	1 600	648	83	761	525	130	127	126	62	78	1 344	73	143	38	361	139	231	2 283	9 909
	1957	1 148	83	1 580	688	100	930	445	148	139	128	44	72	1 376	89	145	41	374	169	157	2 832	10 688
B Inflow of capital and donations	1953	49	6	143	46	4	32	90	11	5	3	12	7	93	5	14	4	69	2	14	161	770
	1954	40	22	201	88	2	71	64	20	1	1	4	8	160	11	10	2	44	6	14	87	856
	1955	32	25	210	56	8	85	68	13	1	18	23	9	272	5	7	1	49	10	3	51	946
	1956	225	29	270	65	9	100	85	15	3	32	4	7	310	5	8	2	104	14	22	423	1 732
	1957	100	40	400	122	23	102	80	19	9	46	5	15	280	22	40	16	185	15	40	1 074	2 633
C Capacity for payments (A+B)	1953	1 247	73	1 795	716	95	740	463	122	105	101	56	81	1 045	64	107	44	336	118	310	1 699	9 317
	1954	1 174	99	1 876	797	100	680	440	163	108	107	67	68	1 186	79	146	44	332	141	293	1 808	9 708
	1955	1 097	116	1 747	694	97	740	587	145	112	133	68	63	1 463	92	151	42	363	140	205	2 013	10 068
	1956	1 299	112	1 870	713	92	861	610	145	130	158	66	85	1 654	78	151	40	465	153	253	2 706	11 641
	1957	1 248	123	1 980	810	123	1 032	525	167	148	174	49	87	1 656	111	185	57	559	184	197	3 906	13 321
D Outflow of capital and donations	1953	15	—	22	5	1	21	16	4	7	2	4	1	26	8	13	1	5	11	3	53	218
	1954	13	3	115	27	3	61	32	5	6	3	6	3	100	1	16	4	10	11	8	80	507
	1955	17	13	103	62	—	25	52	10	7	—	10	5	79	4	14	2	15	16	18	49	501
	1956	93	13	137	52	3	58	76	11	2	2	1	5	148	5	6	1	44	11	6	20	694
	1957	35	21	250	143	5	91	31	9	4	1	9	4	119	8	10	10	56	23	12	50	891
E Remittances of interests and profits	1953	11	2	167	23	12	38	45	15	3	4	6	14	94	7	13	1	21	6	7	433	922
	1954	18	1	137	15	12	38	50	16	3	3	3	8	90	6	17	1	21	5	8	470	922
	1955	20	4	115	22	11	45	68	19	6	6	2	6	93	8	18	1	23	12	5	572	1 056
	1956	30	4	145	22	9	50	85	20	7	4	3	3	130	8	20	1	55	14	7	600	1 217
	1957	39	3	144	26	7	75	57	22	3	4	1	1	140	2	21	1	33	12	7	964	1 562
F Capacity to import (C—D—E).	1953	1 221	71	1 606	688	82	681	402	103	95	95	46	66	925	49	81	42	310	101	300	1 213	8 177
	1954	1 143	95	1 624	755	85	581	358	142	99	101	58	57	996	72	113	39	301	125	277	1 258	8 279
	1955	1 060	99	1 529	610	86	670	467	116	99	127	56	52	1 291	80	119	39	325	112	182	1 392	8 511
	1956	1 176	95	1 588	639	80	753	449	114	121	152	62	77	1 376	65	125	38	366	128	240	1 086	9 730
	1957	1 174	99	1 586	641	111	866	437	136	141	169	39	82	1 397	101	154	46	470	149	178	2 892	10 868
G Imports of goods and services.	1953	877	89	1 457	617	81	648	396	95	90	91	51	62	966	55	96	38	318	108	219	1 055	7 409
	1954	1 058	90	1 749	740	87	620	370	140	96	104	55	64	1 030	74	116	44	248	109	306	1 259	8 359
	1955	1 282	114	1 440	750	88	630	450	126	102	110	57	65	1 064	81	122	38	331	126	260	1 340	8 576
	1956	1 225	98	1 390	700	93	764	453	118	126	144	63	80	1 279	75	113	34	370	130	224	1 672	9 151
	1957	1 400	102	1 760	570	110	939	522	132	135	165	46	84	1 428	98	159	49	498	146	243	2 397	10 983
H Difference between capacity to import and actual imports (F—G)	1953	+ 344	— 18	+149	+ 71	+ 1	+ 33	+ 6	+ 8	+ 5	+ 4	— 5	+ 4	— 41	— 6	— 15	+ 4	— 8	— 7	+ 81	+158	+768
	1954	+ 85	+ 5	—125	+ 15	— 2	— 39	— 12	+ 2	+ 3	— 3	+ 3	— 7	— 41	— 2	— 3	— 5	+ 53	+ 16	— 29	— 1	— 80
	1955	— 222	— 15	+ 89	—140	— 2	+ 40	+ 17	— 10	— 3	+ 17	— 1	—13	+227	— 1	— 3	+ 1	— 6	— 14	— 78	+ 52	— 65
	1956	— 49	— 3	+198	— 61	— 13	— 11	— 4	— 4	— 5	+ 8	— 1	— 3	+ 97	— 10	+ 12	+ 4	— 4	— 2	+ 16	+414	+579
	1957	— 226	— 3	—174	+ 71	+ 1	— 73	— 85	+ 4	+ 6	+ 4	— 7	— 2	— 31	+ 3	— 5	— 3	— 28	+ 3	— 65	+495	—115

Source: See *Explanatory Notes*, Vol. III, No. 2.

Note: Errors and omissions have been estimatively distributed.

[a] Transactions taking place between countries of the region are implicitly included. The totals do not therefore relate to the region as a whole but rather to the aggregate of individual countries.

Table 10

BALANCE OF PAYMENTS OF LATIN AMERICA WITH THE REST OF WORLD

(Thousands of millions of dollars)

Item \ Area	1955 Transactions with			1956 Transactions with			1957 [a] Transactions with		
	United States, Canada, IMF and IBRD	Other non-Latin-American countries	Total	United States, Canada, IMF and IBRD	Other non-Latin-American countries	Total	United States, Canada, IMF and IBRD	Other non-Latin-American countries	Total
A. Goods and services									
Exports f.o.b.	3.79	3.52	7.31	4.13	3.97	8.10	4.32	4.05	8.37
Imports f.o.b.	−3.47	−2.60	−6.07	4.01	−2.64	−6.65	−4.87	−3.04	−7.91
Trade balance	0.32	0.92	1.24	0.12	1.33	1.45	−0.55	1.01	0.46
Transport and insurance	−0.13	−0.30	−0.52	−0.10	−0.26	−0.36	−0.18	−0.41	−0.59
Investment income	−0.89	−0.24	−1.13	−1.08	−0.30	−1.38	−1.21	−0.39	−1.60
Other services	0.16	−0.08	0.08	0.17	−0.08	0.09	0.16	−0.02	0.14
Total	*−0.54*	*0.21*	*−0.33*	*−0.89*	*0.69*	*−0.20*	*−1.78*	*0.19*	*−1.59*
B. Capital and other									
Foreign direct investment in Latin America	0.36	0.08	0.44	0.79	0.16	0.95	1.33	0.18	1.51
Other long-term capital	−0.04	0.11	0.07	−0.03	0.16	0.13	—	0.19	0.19
Short-term capital	0.03	0.01	0.04	0.03	0.16	0.19	0.09	−0.12	−0.03
Private donations	0.04	−0.09	−0.05	0.03	−0.08	−0.05	0.04	−0.10	−0.06
Total	*0.39*	*0.11*	*0.50*	*0.82*	*0.40*	*1.22*	*1.46*	*0.15*	*1.61*
C. Miscellaneous official capital	*−0.13*	*−0.20*	*−0.33*	*−0.16*	*−0.22*	*−0.38*	*−0.14*	*−0.31*	*−0.45*
D. Total (A+B+C)	*−0.28*	*0.12*	*−0.16*	*−0.23*	*0.87*	*0.64*	*−0.46*	*0.03*	*−0.43*
E. Net errors and omissions, and multilateral settlements	*−0.03*	*−0.39*	*−0.42*	*0.02*	*−0.65*	*−0.63*	*−0.14*	*−0.11*	*−0.25*
F. Cumulative balance (D+E)	*−0.31*	*−0.27*	*−0.58*	*−0.21*	*0.22*	*0.01*	*−0.60*	*−0.08*	*−0.68*
G. Loans received and other									
United States Government loans	0.11	—	0.11	0.11	—	0.11	0.24	—	0.24
IBRD loans	0.08	—	0.08	0.10	—	0.10	0.08	—	0.08
Other loans	0.26	0.15	0.41	0.08	0.18	0.26	0.12	0.15	0.27
United States Government grants	0.06	—	0.06	0.07	—	0.07	0.09	—	0.09
Total	*0.51*	*0.15*	*0.66*	*0.36*	*0.18*	*0.54*	*0.53*	*0.15*	*0.68*
H. Monetary movements									
Net IMF position	0.02	—	0.02	0.02	—	0.02	−0.15	—	−0.15
Other short-term liabilities	0.08	−0.09	−0.01	−0.15	0.09	−0.06	0.02	0.01	0.03
Short-term assets	0.11	−0.06	0.05	0.25	0.32	0.57	0.14	−0.04	0.10
Monetary gold	−0.01	0.03	0.02	0.03	−0.01	0.02	−0.08	0.10	0.02
Total	*0.20*	*−0.12*	*0.08*	*0.15*	*0.40*	*0.55*	*−0.07*	*0.07*	*—*

Source: International Monetary Fund, *Balance of Payments Yearbook.*

[a] Provisional data.

Table 11

BALANCE OF PAYMENTS OF LATIN AMERICA WITH THE UNITED STATES

(Millions of dollars)

Item	Years			Quarters					
				1958				1959	
	1956	1957	1958	I	II	III	IV	I	II
Goods and services: total balance	— 808	—1 590	— 969	— 224	— 241	—281	— 223	— 11	—178
Goods: *Balance*	— 53	—4 642	— 381	— 93	— 88	—132	— 68	156	27
Exports to the United States	3 782	3 930	3 749	964	952	861	972	1 006	944
Imports from the United States	—3 835	—4 642	—4 130	—1 057	—1 040	—993	—1 040	— 850	—917
Services: Balance	— 755	— 878	— 588	— 131	— 153	—149	— 155	— 167	—205
Exports to the United States	1 010	1 102	1 088	259	258	289	282	214	213
Imports from the United States	—1 765	—1 980	—1 676	— 390	— 411	—438	— 437	— 381	—418
Of *which:* Income on investments	— 878	—1 015	— 767	— 174	— 180	—197	— 216	— 201	—183
Movements of private United States capital and other (total)	848	1 440	531	153	228	15	135	68	145
Private United States capital	815	1 395	488	143	216	5	124	57	133
Private donations	33	45	43	10	12	10	11	11	12
Surplus or deficit on goods and services, private donations and private United States capital (A+B)	40	— 150	— 438	— 71	— 13	—266	— 88	57	— 33
United States Government loans and other (total)	188	268	600	95	76	250	179	110	83
Loans	96	146	471	58	40	222	151	80	43
Grants	92	122	129	37	36	28	28	30	40
Changes in foreign holdings of gold and foreign assets (total)	— 385	— 158	189	64	—	211	— 86	— 102	— 19
Change in long-term assets	— 28	— 4	59	3	52	6	— 2	— 9	— 2
Change in short-term balances	— 329	— 235	61	61	— 52	194	— 142	— 92	4
Purchases or sales of gold	— 28	81	69	—	—	11	58	— 1	— 21
Errors, omissions and inter-regional transfers of dollars	157	40	351	— 88	— 63	—185	— 5	— 65	— 65

ces: *Survey of Current Business,* September 1959.
: Data exclude military transfers.

Table 12

GROSS CONSUMPTION OF COMMERCIAL ENERGY

(Thousands of tons of crude petroleum equivalent)

Country	1949	1950	1951	1952	1954	1955	1956	1957
entina	9 040	9 820	10 150	10 400	11 540	12 692	13 400	14 310
ivia	237	225	246	278	330	376	407	430
zil	7 730	8 870	9 968	11 234	12 700	15 000	16 770	16 510
ombia	1 864	1 850	2 030	2 160	3 360	3 910	4 130	4 740*
le	3 144	3 262	3 686	3 870	4 200	4 427	4 580	4 500
ador	260	280	300	335	360	420	425	460
aguay	20	10	16	30	50	60*	60*	70*
u	1 595	1 650	2 030	2 183	2 350	2 238	2 490	2 590
guay	980	1 043	1 140	1 190	1 320	1 367	1 458	1 480
ezuela	3 690	4 020	4 704	5 110	6 900	7 970*	8 630*	10 520*
th America	*28 560*	*31 030*	*34 270*	*36 790*	*43 110*	*48 460**	*52 350**	*55 610**
sta Rica	150	160	165	182	210	220	265	270
ba	1 650	1 750	1 984	1 890	2 188	2 270	2 300	2 430*
Salvador	113	125	143	157	170	200	232	256
atemala	266	303	270	280	286	353	378	392*
iti	18	37	37	44	53	58*	60*	65*
nduras	136	154	160	176	205	210*	217*	220*
xico	9 095	9 585	11 090	11 690	12 870	12 190	13 740	14 460
aragua	65	70	70	90	113	140*	133	140*
nama	160	170	194	238	253	240	215	230
minican Republic	107	106	107	183	242	269	290	307
ntral America and Mexico	*11 760*	*12 460*	*14 220*	*14 930*	*16 590*	*16 150**	*17 830**	*18 770**
in America	40 320	43 490	48 490	51 720	59 700	64 610*	70 180*	74 380*

rces and methods: See *Explanatory Notes.*

Table 13

COMPOSITION OF GROSS CONSUMPTION OF ENERGY

(Thousands of tons of crude petroleum equivalent)

Country	Hydro-electricity			Petroleum derivatives a			Coal			Woo
	1949–51	1955	1957	1949–51	1955	1957	1949–51	1955	1957	195
Argentina	98	165	236	8 340	11 395	13 100	1 230	1 133	975	2 6
Bolivia	90	130	124*	140	243	300	6	3	3*	4
Brazil	3 030	4 450	5 684	4 400	8 965	9 478	1 424	1 585	1 350	10 1
Colombia	300	620	700*	1 010	2 084	2 770	603	1 205	1 270*	1 6
Chile	705	980	1 055	1 220	1 850	2 028	1 440	1 595	1 422	8
Ecuador	34	50	57	246	370	404	—	—	—	5
Peru	348	365	432	1 310	1 780	2 080	101	92	80	1 0
Uruguay	198	285	232	768	1 020	1 183	88	61	65	2
Venezuela	77	...	...	4 040	7 863	10 404	18	26	25	5
South America c	*4 880*	*7 130 **	*8 610 **	*21 490*	*35 630*	*41 820*	*4 910*	*5 700*	*5 190**	*18 2*
Costa Rica	65	103	120*	94	114	152	—	—	—	1
Cuba	5	6	6	1 740	2 200*	...	50	60	120	2 5
El Salvador	34	54	75	94	146	181	—	—	—	4
Guatemala	30	42	45*	250	311	346	1	—	—	4
Mexico	950	1 530	1 538	8 392	9 720	11 923	580	940	1 000	1 5
Panama	—	—	—	174	240	234	—	—	...	12
Dominican Republic	—	—	—	107	266	305	—	—	—	56
Central America and Mexico c	*1 090*	*1 750*	*1 800 **	*11 080*	*13 390**	*15 780**	*630*	*1 000*	*1 120**	*6 65*
Latin America c	*5 970*	*8 880 **	*10 410 **	*32 570*	*49 020**	*57 600**	*5 540*	*6 700*	*6 310**	*24 88*

SOURCES AND METHODS: See *Explanatory Notes.*
a Including consumption of natural gas.
b Including also other vegetable fuels, mainly bagasse.
c Including estimates for the other countries in the region.

Table 14

INSTALLED CAPACITY OF ELECTRIC ENERGY

Country	Total capacity (Thousands of kW)			Hydro-electric capacity			Capacity of public services		
				(As percentage of total capacity)					
	1949–51	1951	1957	1949–51	1955	1957	1949–51	1955	1957
Argentina	1 850	2 100	2 590	2	5	17	75	79	80
Bolivia a	60	117	133	72	71	72	...	...	...
Brazil	1 850	3 150	3 800	83	79	82	76	76	79*
Colombia	220	520	670	73	55	53	...	81	67
Chile	724	970	1 006	50	54	52	62	55	52
Ecuador	50	63	84	35	41	45	...	76	70*
Paraguay	8	50	60	—	—	—	...	94	...
Peru	...	390	515	...	56 b	70	...	51	...
Uruguay	230 a	290	337	55 a	47	40	...	93	86
Venezuela	346	500	1 040	...	...	5*	60	67	63
South America	*5 700 **	*8 200*	*10 300*	*44**	*48**	*50**	*72**	*73**	*73**
Costa Rica	50	64	87 b	85	76	64	78	80	84b
Cuba	430	635	680	—	1	1	42	42	59*
El Salvador	27	60	86 b	33	69	74	67	83	86b
Guatemala	33	43	50 b	53	56	55	79	77	78b
Haiti a	6	23	26	—	—	—	...	...	...
Honduras	17	20	22 b	6	8	14	24	34	39b
Mexico	1 244	1 930	2 270	49	48	49	76	78	79
Nicaragua	30	43	46 b	...	20	22	28	38	35b
Panama	18	30	55	—	—	—	...	94	...
Dominican Republic a	27	62	80	—	—	—	...	...	...
Central America and Mexico	*1 890*	*2 930*	*3 450*	*35**	*36*	*37*	*67**	*70**	*75**
Latin America	*7 590 **	*11 130*	*13 750*	*42**	*45**	*47**	*71**	*72**	*73**

SOURCES AND METHODS: See *Explanatory Notes.*
a Data relate to the public services.
b 1956.

Table 15

PRODUCTION OF ELECTRICITY BY PUBLIC SERVICES

Country	Total (Millions of kWh)			Hydro-electricity (As percent of total)			Annual rate of increase a (Percent)	
	1949–51	1955	1957	1949–51	1955	1957	1949–51 to 1955	1955 to 1957
iina	4 423	6 031	6 857	5	7	8	6.4	6.6
	176	220	223	65	73	73	4.6	0.7
	6 850	10 716	13 378	...	78	84	9.4	11.7
bia	1 022	1 800	2 400	69	69	69	12.0	15.5
	1 573	1 867	1 977	85	86	89	3.5	2.9
or.	98	210	233*	...	44	45*	16.5	5.3*
nay	30	50	55	—	—	—	10.8	4.9
	327	626	757	75	80	80	13.9	10.0
ay	624	1 024	1 155	59	66	48	10.4	6.2
uela	557	1 276	1 905	...	...	8	18.0	22.2
America b	15 680	23 820	28 940 *	54*	56*	58*	8.7	10.2*
l Rica	158	265	345	100	88	80	10.9	14.1
	761	1 200	1 500	—	—	1	6.0	11.8
vador	66	130	178	57	98	98	14.5	17.0
mala c	90	134	145*	78	75	73*	8.3	4.0*
ras c	12	23	30	31	22	26	13.9	14.2
o	3 658	5 652	6 776	...	49	49	9.1	9.5
gua	24	48	57	8	6	6	14.9	9.0
a.	83	124	138	—	—	—	8.3	5.5
nican Republic	82	195	258	—	—	—	18.9	15.0
al America and Me-	3 658	5 652	6 776	39*	41	41*	9.7	10.1*
America b	20 630	31 690	38 480 *	51*	52*	54*	9.0	10.2*

ES AND METHODS: See *Explanatory Notes*.
refer to total production of electricity of public services.
uding estimates for the other countries in the region.

Table 16

CONSUMPTION OF PETROLEUM DERIVATIVES BY MAIN TYPES

(Thousands of tons of crude petroleum equivalent)

Country	Fuel oil			Diesel and gas oil			Kerosene			Motor spirit a		
	1949–51	1955	1957	1949–51	1955	1957	1949–51	1955	1957	1949–51	1955	1957
ntina	4 870	6 320	7 036	810	1 700	2 217	624	1 025	1 214	1 595	1 738	1 916
ia.	77	110	110	5	30	54	8	20	36	50	83	100
l	1 730	3 610	3 627	633	1 415	1 600	260	605	550	1 773	2 948	3 080
nbia	397 b	510	976	98	272	350	67 c	184	198	450	910	960
	800	990	1 060	97	226	252	47	175	182	275	442	500
dor	110	130	143	27	55	70	15	25	30	94	160	160
	755 d	610	605	105	300	420	123	234	296	326	575	718
nay	386	430	570	85	166	170	110	165	170	182	260	270
zuela	1 722	2 670	3 650	360	866	1 256	224	387	440	674	1 286	1 620
n America e	10 840	15 390	17 790	2 220	5 060	6 390	1 480	2 830	3 130	5 430	8 440	9 370
a Rica	34	40	32	26	27	57	4	6	8	30	41	55
alvador	45	54	61	12	14	21	5	16	23	32	62	76
emala	176	173	154	20	33	50	7	14	22	47	91	120
co	4 563	4 108	4 865	580	1 017	1 400	600	1 105	928	1 736	2 692	3 635
ragua	40 f	66 f	57 * f	...	...	...	5	17	18*	22	47	54*
ma	87	103	96	22	36	48	13	19	20	52	82	70
inican Rep.	53 f	106	134	....	63	64	8	13	9	46	84	98
ral America d Mexico e	6 420	6 420	7 210 *	660 *	1 190	1 640*	710	1 280	1 130*	2 390	3 700	4 740
a Ameirca e	17 260	21 810	25 000 *	2 880 *	6 220 *	8 030*	2 190	4 110	4 260*	7 820	12 140	14 110

CES AND METHODS: See *Explanatory Notes*.
luding aviation spirit.
luding liquid and natural gases.
luding "tractolina" and liquid gas.
luding gas (natural, liquid and from refining) and benzine.
luding estimates for the other countries in the region.
luding gas and diesel oil.

Table 17

REFINING OF CRUDE PETROLEUM

Country	Crude petroleum processed (Thousands of cubic metres)					As percentage of national production				
	1949–51	*1955*	*1956*	*1957*	*1958*	*1949–51*	*1955*	*1956*	*1957*	*19*
Argentina	6 719	9 537	9 627	11 977	12 870*	180	197	195	222	2
Bolivia	88	338	447	407	375	91	79	88	72	
Brazil	118 *	4 089	6 297	7 162	7 839	195*	1 272	962	446	2
Colombia	1 403	2 140	2 321	2 564	3 724	26	34	33	35	
Chile	—	778	1 072	1 156	1 315	—	190	190	168	14
Ecuador	260	319	324	329	358	62	57	60	65	
Mexico	9 251	13 028	13 026	13 709	14 750*	83	92	90	97	
Peru	2 014	2 356	2 501	2 510	2 650*	83	86	86	82	
Uruguay	890	1 302	1 243	1 289	1 308	a	a	a	a	
Venezuela	13 740	31 140	36 290	39 940	42 470	16	25	25	25	
Latin America b	*34 800 **	*65 330*	*73 550*	*82 480*	*89 100**	*31**	*42*	*42*	*42*	
Latin America (excluding Venezuela) b	*21 060**	*34 190*	*37 260*	*42 540*	*46 630**	*90**	*114*	*118*	*128*	*12*

Sources and methods: See *Explanatory Notes.*

a There is no production.

b Including an estimate for Cuba.

Table 18

SHARE OF INTERNATIONAL TRADE IN THE CONSUMPTION AND PRODUCTION OF PETROLEUM AND COAL [a]

Country	Imports as percentage of consumption						Exports of petroleum as percent-age of production		
	Petroleum and natural gas			Coal					
	1949–51	*1955*	*1957*	*1949–51*	*1955*	*1957*	*1949–51*	*1955*	*19*
Argentina	58	63	63	92	91	86	—	—	—
Bolivia	59	6	. . .	100	100	100	18	24	3
Brazil	96	97	87	48	47	44	—	—	—
Colombia	24	22	12	—	—	—	83	65	5
Chile	100	82	72	5	10	12	93	—	—
Ecuador	6	22	27	100	100	100	35	41	3
Paraguay	100	100	100	100	100	100	—	—	—
Peru	3	12	17	—	1	1	54	42	4
Uruguay	105	123	87	100	100	100	—	—	—
Venezuela	—	1	—	3	2	3	96	96	9
South America	53	55	48 *	40	35	32	93	93	8
Cuba	100	96	. . .	100	100	100	—	—	—
Mexico	9	25	22	5	4	4	22	29	2
Central America and Mexico b	31	45	40 *	13	10	15	22	29	2
Latin America b	46	52	45 *	37	31	29	86	87	8

Sources and methods: See *Explanatory Notes.*

a There were no exports of coal except from Chile and Peru.

b The other countries of Central America are included in the total. These countries did not produce crude petroleum nor coal.

Table 19

VOLUME OF MANUFACTURING PRODUCTION IN LATIN AMERICA

Regional average of national indices weighted by values added

(Indices: 1955 = 100)

Industrial group	ISIC group	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
				A. Annual indices								
manufacturing	2–7	*69*	*72*	*77*	*82*	*83*	*85*	*92*	*100*	*106*	*111*	*115*
hich:												
od, beverages, tobacco	20–22	72	75	80	85	89	91	95	100	105	111	116
xtiles	23	83	85	86	86	83	85	96	100	103	98	97
per and paper products	27	66	69	77	83	79	83	91	100	114	124	132
emicals, petroleum[a]	31–32	53	56	65	71	74	75	81	100	114	124	132
n-metallic mineral products	33	57	63	69	75	77	85	91	100	107	115	114
sic metals	34	59	65	70	77	75	77	85	100	113	118	125

	ISIC group	*1957*				*1958*				*1959*
		I	*II*	*III*	*IV*	*I*	*II*	*III*	*IV*	*I*
				B. Quarterly indices						
l manufacturing	2–3	*104*	*110*	*115*	*114*	*108*	*115*	*120*	*117*	*108*
which:										
ood, beverages, tobacco	20–22	105	109	114	115	109	115	121	118	105
xtiles	23	94	100	103	96	87	98	103	97	91
per and paper products	27	123	117	132	124	124	130	136	140	129
emicals, petroleum[a]	31–32	116	124	130	126	126	132	138	135	136
on-metallic mineral products	33	109	114	117	119	107	114	118	116	114
sic metals	34	115	118	118	126	122	123	130	127	129

CE: United Nations, *Monthly Bulletin of Statistics.*

luding coal products.

Table 20

VOLUME OF GROSS MINING PRODUCTION AT 1955 INTERNATIONAL PRICES

(Indices: 1955 = 100)

	Weighting 1955	*1950*	1951	1952	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
By products										
Coal	4.7	79	83	88	93	94	100	102	103	104
Crude petroleum	69.8	71	80	84	83	89	100	113	125	121
Iron ore	3.2	34	47	51	65	82	100	134	167	168
Copper ore	11.6	87	91	94	86	86	100	110	112	107
Lead ore	2.3	94	98	106	101	98	100	101	110	101
Zinc ore	1.0	72	69	85	85	88	100	97	93	84
Tin ore	1.4	112	118	114	124	102	100	96	99	64
Silver	1.6	109	104	108	99	88	100	92	97	98
Gold	1.4	109	104	107	110	99	100	97	91	92
Sulphur	0.4	7	13	21	16	32	100	144	186	220*
Nitrate	1.8	104	109	93	92	102	100	75	85	83
otal	*100.0*	*75*	82	86	*85*	*89*	*100*	*111*	*122*	*117**
By countries										
Argentina	2.5	80	85	91	95	97	100	101	112	119*
Bolivia	2.1	104	110	107	111	94	100	100	103	74
Brazil	2.3	75	81	87	93	89	100	112	125	151*
Colombia	4.2	80	89	88	93	96	100	110	114	117
Chile	12.8	90	94	96	89	89	100	107	108	105
Mexico	12.3	87	89	93	89	92	100	101	104	108
Peru	4.3	66	74	78	88	96	100	110	120	110
Venezuela	58.6	67	77	82	80	87	100	115	130	123

RCES AND METHODS: See *Explanatory Notes,* Vol. IV, No. 1.

Table 21

PRODUCTION OF SELECTED MINERALS

País	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
Coal (*Thousands of tons*)									
Argentina	26	40	112	82	93	133	152	206	264
Brazil	1 959	1 693	1 960	2 025	2 055	2 268	2 234	2 116	2 202
Colombia	1 010	1 115	966	1 230	1 500	1 800	1 900	2 200	2 200
Chile a	2 217	2 211	2 450	2 336	2 267	2 305	2 279	2 169	1 978
Mexico	912	1 119	1 317	1 432	1 314	1 342	1 408	1 421	1 471
Peru	197	186	225	281	258	136	145	140	175
Venezuela	26	28	25	29	32	31	31	35	37
Total	*6 347*	*6 662*	*7 055*	*7 415*	*7 519*	*8 015*	*8 149*	*8 287*	*8 327*
Crude petroleum (*Thousands of tons*)									
Argentina	3 357	3 501	3 552	4 080	4 229	4 365	4 437	4 858	5 133
Bolivia	80	68	67	78	221	351	417	466	448 *
Brazil	38	90	98	120	130	264	530	1 321	2 587
Colombia	4 711	5 311	5 351	5 454	5 530	5 493	6 104	6 339	6 480
Chile	82	99	119	164	226	336	462	565	728
Ecuador	347	357	375	391	415	466	451	421	409 *
Mexico	10 363	11 062	11 057	10 364	11 969	12 793	12 972	12 696	13 566
Peru	2 051	2 139	2 249	2 126	2 280	2 302	2 543	2 553	2 502
Venezuela	79 975	91 007	96 571	94 229	101 186	115 169	131 521	148 378	139 067
Total	*101 004*	*113 634*	*119 439*	*117 006*	*126 186*	*141 539*	*159 437*	*177 597*	*170 920*
Iron ore (*Thousands of tons of metal content*)									
Brazil	1 351	1 637	2 150	2 460	2 088	2 300	2 778	2 720	2 400 b
Chile	1 771	1 961	1 426	1 723	1 310	940	1 563	1 608	2 306
Mexico	286	313	340	331	314	429	489	569	581
Peru	—	—	—	558	1 118	1 024	1 561	2 076	1 580
Venezuela	127	813	1 261	1 470	3 469	5 401	7 107	9 842	10 085
Total	3 408	4 724	5 177	6 542	8 299	10 094	13 498	16 815	16 952
Copper ore (*Thousands of tons of metal content*)									
Bolivia c	4.7	4.8	4.7	4.5	3.7	3.5	4.4	3.9	2.9
Cuba	21.0	19.6	17.7	15.5	15.4	17.7	14.6	13.9	12.7
Chile	362.9	380.7	408.6	361.1	363.7	433.5	489.7	484.6	462.2
Mexico	61.7	67.4	58.5	60.1	54.8	54.7	54.9	60.7	65.0
Peru	30.2	32.3	30.4	35.4	38.4	43.4	46.2	57.2	50.9
Total	480.5	504.8	519.9	476.6	476.0	552.8	609.8	620.3	593.7
Lead ore (*Thousands of tons of metal content*)									
Argentina	17.4	24.0	20.0	15.6	19.1	23.1	24.3	30.7	29.9
Bolivia c	31.2	30.6	30.0	23.8	18.2	19.1	21.6	26.3	22.8
Chile	3.4	7.3	6.6	5.2	4.0	4.0	3.2*	3.6*	3.6*
Mexico	238.1	225.5	246.0	221.5	216.6	210.8	199.6	214.9	201.9
Peru	64.9	82.4	95.8	114.6	110.1	118.8	129.1	137.2	121.5
Total	355.0	369.8	398.4	380.7	368.0	375.8	377.8	412.7	379.7

PRODUCTION OF SELECTED MINERALS

	1950	1951	1952	1953	1954	1955	1956	1957	1958
ZINC ORE *(Thousand of tons of metal content)*									
Argentina	13.5	17.0	16.5	17.2	19.6	22.5	24.8	29.5	32.9
Bolivia [c]	19.6	30.5	35.6	24.0	20.4	21.3	17.1	19.7	14.2
Mexico	223.5	180.1	227.4	226.5	223.7	269.4	248.9	243.0	224.1
Peru	87.9	101.3	127.8	139.1	158.6	166.1	175.1	154.5	129.9
Total	344.5	328.8	407.3	406.8	422.3	479.3	465.9	446.7	401.1
TIN ORE *(Tons of metal content)*									
Argentina	261	241	265	156	97	86	85	185	48
Bolivia [c]	31 714	33 664	32 472	35 384	28 287	28 369	27 273	28 242	18 015
Mexico	447	372	419	483	355	615	537	451	553
Total	32 422	34 277	33 156	36 023	29 739	29 070	27 895	28 878	18 616
SILVER *(Tons)*									
Argentina	235	240	340	223	155	100	52	42	48
Bolivia [d]	204	223	220	190	157	184	235	167	190
Colombia	4	4	4	4	4	4	3	3	3
Chile	29	37	44	47	46	53	57	48	55
Honduras	136	125	112 e	173 e	107 e	117 e	60 e	93 e	89 e
Mexico	1 528	1 362	1 566	1 464	1 241	1 492	1 340	1 467	1 480
Peru	416	541	597	611	635	714	714	773	751
Total	2 552	2 532	2 883	2 642	2 345	2 664	2 461	2 593	2 616
GOLD *(Kilograms)*									
Bolivia [d]	240	99	335	713	1 325* e	2 296 e	750 e	1 460 e	590 e
Brazil	5 085	5 323	4 976	4 575	4 765	4 505	5 039	4 700	5 785
Colombia	11 801	13 397	13 133	13 562	11 741	11 845	13 634	10 114	11 560
Chile	5 984	5 439	5 229	4 065	3 887	3 822	2 938	3 222	2 204
Ecuador	3 059	392	756	909	589	476	469	504	613
El Salvador	916	767	800	620	166	119	90	78	71
Honduras [e]	1 137	1 039	1 104	1 479	635	25	50	62	80
Mexico	12 694	12 237	14 289	15 041	12 034	11 909	10 893	10 771	10 335
Nicaragua [e]	7 157	7 792	7 921	8 058	7 252	7 141	6 728	6 175	6 478
Peru	4 602	4 923	4 073	4 412	4 585	5 311	5 190	5 030	4 950
Venezuela	1 072	89	149	849	1 744	1 902	2 111	2 803	2 675
Total	53 747	51 497	52 765	54 283	48 723	49 351	47 892	44 919	45 341
SULPHUR *(Thousands of tons)*									
Argentina	7.8	7.7	18.6	19.0	21.3	18.7	18.9	17.3	...
Bolivia [c]	4.4	7.8	5.6	2.5	2.6	4.0	3.5	0.8	0.2
Chile	15.4	30.2	48.6	32.6	49.7	51.0	36.7	21.6	26.0
Mexico	11.4	29.1	49.1	34.1	114.5	520.9	794.6	1 068.7	1 266.3
Peru	0.1	2.3	5.1	5.0	—	—	—	—	—
Total	39.1	77.1	127.0	93.2	188.1	594.6	853.7	1 108.4	...
NITRATE *(Thousands of tons)*									
Chile	1 608	1 680	1 438	1 421	1 574	1 540	1 159	1 310	1 280

SOURCES AND METHODS: See *Explanatory Notes,* Vol. IV, No. 1.

[a] Including lignite.

[b] Estimate based on the export trend.

[c] Exports.

[d] Exports plus sales to the *Banco Central* and the *Banco Minero.*

Table 22

TERMS OF TRADE

(Indices: 1955 = 100)

Country	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
Argentina	143 [a]	129 [a]	130 [a]	133	105	123	101	100	90	92	93
Bolivia	101	91	87	119	104	89	94	100	105	104	101
Brazil	66	64	113	113	102	114	131	100	100	104	101
Colombia	65	75	102	89	92	95	110	100	93	98	81
Chile	88	91	84	92	96	105	90	100	110	89	78
Peru	97	104	116	142	109	94	100	100	100	136	83
Uruguay	102	102	119	138	98	120	122	100	92	95	81
Venezuela	95	96	103	95	91	94	100	100	91	82	95
Total [b]	*94*	*89*	*111*	*108*	*96*	*106*	*109*	*100*	*95*	*93*	*94*
Costa Rica	58	65	87	96	85	98	108	100	109	99	80
Cuba	98	107	118	115	106	96	101	100	104	134	125
El Salvador	49	54	78	92	88	90	115	100	101	81	98
Guatemala	57	67	86	91	93	97	89	100	99	104	110
Haiti	62	65	89	102	103	100	118	100	93	97	80
Honduras	80	85	92	96	96	103	107	100	85	77	95
Mexico	50	68	77	85	83	96	104	100	98	93	85
Nicaragua	52	63	68	90	87	87	115	100	90	79	74
Panama	81	87	96	93	88	91	108	100	98	91	88
Dominican Republic	120	96	125	147	117	99	119	100	101	127	107
Total	*71*	*82*	*93*	*100*	*94*	*96*	*105*	*100*	*101*	*108*	*97*
Grand total Latin America [b]	*88*	*87*	*106*	*106*	*96*	*103*	*108*	*100*	97	97	95

SOURCES AND METHODS: Vol. III, No. 2, and Vol. IV, No. 1; also notes to table 19. The indices shown above were obtained by dividing unit value indices for exports by the corresponding indices for imports.

[a] Provisional.

[b] Including estimates for Ecuador and Paraguay.

Table 23

VALUE OF EXPORTS AND IMPORTS AT CURRENT PRICES (ANNUAL)

(Millions of dollars)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
(a) EXPORTS *f.o.b.*											
gentina	1 577.0	1 011.1	1 144.9	1 169.4	677.6	1 099.4	1 029.5	928.6	943.8	974.8	993.9
blivia	112.6	101.2	93.3	150.7	140.6	112.3	97.0	99.8	106.6	96.0	64.1
azil	1 172.7	1 089.3	1 346.6	1 757.4	1 408.8	1 539.1	1 561.8	1 423.2	1 482.0	1 391.6	1 243.0
lombia	288.5	321.0	395.6	460.0	473.2	596.1	657.1	583.9	537.5	510.6	454.0
ile	329.6	296.8	283.9	372.2	455.8	412.0	404.2	475.8	545.6	459.3	389.4
uador	46.5	32.7	64.7	56.8	79.3	74.8	101.2	88.3	92.9	98.7	96.4
raguay	28.2	32.9	33.0	37.7	31.3	25.4	34.0	35.1	36.7	32.9	34.1
ru	159.1	150.5	193.3	248.5	234.8	219.0	245.7	269.4	309.8	321.4	290.0
uguay	178.1	191.6	254.3	236.3	208.9	269.8	248.9	183.7	211.1	128.3	138.6
nezuela	1 040.0	1 002.9	1 160.7	1 353.2	1 450.2	1 445.2	1 689.7	1 912.1	2 123.6	2 366.6	2 321.4
Total	*4 932.3*	*4 230.0*	*4 970.3*	*5 842.2*	*5 160.5*	*5 793.1*	*6 069.1*	*5 999.9*	*6 389.6*	*6 380.2*	*6 024.9*
sta Rica [a]	45.6	46.5	53.7	63.4	73.3	80.1	84.1	80.5	66.7	82.3	91.9
ba [a]	723.9	593.3	668.0	802.1	688.3	669.3	557.0	607.2	686.2	844.7	774.0
Salvador	45.0	54.1	68.4	84.6	87.3	88.8	105.0	106.9	112.7	138.5	116.0
atemala [a]	67.3	63.2	78.9	84.2	94.7	99.6	104.9	106.4	122.1	114.2	105.9
aiti	29.9	35.4	38.6	51.0	52.0	38.2	54.6	36.0	42.0	34.3	39.4
onduras [a]	54.0	55.0	55.0	66.0	61.4	67.2	56.5	48.1	72.4	63.9	75.3
exico [a]	439.5	410.3	518.9	634.4	656.3	583.4	629.4	783.4	801.1	726.4	732.4
icaragua	18.4	15.6	26.3	36.6	42.1	45.5	54.4	71.7	57.5	63.7	63.8
nama [a]	20.1	21.0	21.0	22.4	20.6	23.7	28.5	33.2	28.5	33.4	31.8
ominican Republic	81.8	73.0	86.5	118.2	115.0	104.2	118.8	114.3	123.2	159.7	134.5
Total	*1 525.5*	*1 367.4*	*1 615.3*	*1 962.9*	*1 891.0*	*1 800.0*	*1 793.2*	*1 987.7*	*2 112.4*	*2 261.1*	*2 165.0*
Grand total Latin America	*6 457.8*	*5 597.4*	*6 585.6*	*7 805.1*	*7 051.5*	*7 593.1*	*7 862.3*	*7 987.6*	*8 502.0*	*8 641.3*	*8 189.9*
(b) IMPORTS *c.i.f.*											
gentina	1 572.8	1 171.1	964.2	1 477.0	1 181.0	795.1	979.0	1 172.6	1 127.6	1 310.4	1 232.6
livia	79.0 [b]	90.1 [b]	64.2 [b]	98.7 [b]	106.5 [b]	78.2 [b]	72.9 [b]	82.4	84.0	92.2	79.6
azil	1 133.6	1 115.1	1 096.8	2 008.7	2 008.2	1 317.5	1 626.5	1 303.8	1 232.3	1 488.8	1 352.9
lombia	336.6	264.6	364.7	416.4	415.4	546.7	671.8	669.3	657.2	482.6	399.9
hile	269.8	304.6	247.9	329.3	370.7	335.5	343.9	377.2	354.2	442.4	415.5
uador [b]	57.2	53.0	48.1	60.7	68.5	74.1	120.7	108.0	96.3	110.3	104.6
raguay [b]	27.7	32.4	21.8	29.3	35.6	28.2	38.1	33.1	28.6	31.7	37.8
ru	167.8	167.1	175.6	261.6	287.5	292.6	249.6	299.5	364.0	399.4	334.2
ruguay	200.4	181.2	200.8	309.4	236.2	193.1	273.2	225.0	205.8	226.4	134.6
enezuela [b] [c]	834.3	797.0	668.8	762.9	847.4	919.0	1 029.0	1 092.2	1 249.0	1 868 1	1 599.1
Total	*4 679.2*	*4 176.2*	*3 852.9*	*5 754.0*	*5 557.0*	*4 580.0*	*5 404.7*	*5 363.1*	*5 399.1*	*6 452.3*	*5 690.8*
osta Rica	42.2	43.4	46.0	55.7	67.9	73.7	80.6	87.5	91.2	102.8	99.3
uba [b]	569.3	487.0	607.7	753.9	744.9	590.7	598.9	633.1	714.0	894.2	855.0
l Salvador	41.4	40.6	48.3	62.8	69.1	72.3	86.7	91.9	104.7	115.0	107.6
uatemala	68.3	68.0	71.2	80.8	75.6	79.5	86.3	103.5	137.7 [b]	147.3 [b]	149.5 [b]
aiti	30.9	34.2	37.9	44.0	52.9	43.9	47.5	39.6	46.4	38.8	40.5
onduras [b]	37.0	42.0	39.0	53.0	66.0	62.0	59.0	62.0	66.7	79.0	76.8
exico	550.4	481.0	555.7	822.1	807.3	807.5	787.2	883.7	1 071.6	1 155.2	1 128.6
icaragua	28.0 [b]	24.3 [b]	28.6 [b]	35.1 [b]	46.8 [b]	50.4 [b]	68.2 [b]	69.6	68.7	80.8	77.9
nama [b]	73.0	70.6	70.3	76.0	84.1	81.3	83.0	88.0	98.0	117.0	109.5
ominican Republic	74.3	51.0	49.6	66.6	110.9	98.5	94.0	113.2	125.7	136.0	148.7
Total	*1 514.8*	*1 342.1*	*1 554.3*	2 050.0	2 125.5	*1 959.8*	*1 991.4*	2 172.1	2 524.7	2 866.1	2 793.4
Grand total Latin America	*6 194.0*	*5 518.3*	*5 407.2*	*7 804.0*	*7 682.5*	*6 539.8*	*7 396.1*	*7 535.2*	*7 923.8*	*9 318.4*	*8 484.2*

URCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

Including a revaluation for commodities with nominal or arbitrary prices.

F.o.b. values were adjusted to approximate c.i.f.

Including gold in most years.

Table 24

VALUE OF EXPORTS AND IMPORTS AT CURRENT PRICES (QUARTERLY)

(Millions of dollars)

Country	1957				1958				1959
	I	II	III	IV	I	II	III	IV	I
	(a) EXPORTS *f.o.b.*								
Argentina	279.6	243.4	215.2	236.6	242.8	254.3	223.8	273.0	226.0
Bolivia	20.1	27.7	21.4	26.8	14.9	18.2	16.5	14.5	16.8
Brazil	345.3	270.1	359.5	416.7	270.8	303.8	312.7	355.7	333.4
Colombia	140.1	108.2	138.2	124.1	105.7	94.3	134.3	119.7	99.9
Chile	125.9	118.5	104.3	110.6	103.0	66.4	95.6	124.4	...
Ecuador	20.1	21.0	32.0	25.6	19.6	20.1	33.1	23.6	19.7
Paraguay	6.2	8.6	10.3	7.8	5.2	9.1	10.2	9.6	4.9
Peru	71.7	80.8	76.9	92.6	61.2	65.6	78.8	84.4	59.6
Uruguay	57.3	29.4	24.9	16.6	44.6	28.7	27.2	38.1	38.5
Venezuela	597.6	614.2	588.8	566.0	567.9	560.5	567.6	625.4	...
Total	*1 663.3*	*1 521.9*	*1 571.5*	*1 623.4*	*1 435.7*	*1 421.0*	*1 499.8*	*1 668.4*	...
Costa Rica	29.6	20.6	13.1	19.0	25.9	28.4	14.6	23.0	27.5
Cuba[b]	201.1	288.6	224.1	130.9	191.0	224.0	200.0	159.0	...
El Salvador	65.6	38.2	14.7	20.0	40.2	30.2	18.4	27.2	44.8
Guatemala[b]	39.2	24.5	16.6	33.9	35.0	30.6	16.1	24.2	31.2
Haiti	10.9	8.0	6.4	9.0	17.6	10.4	4.9	6.5	8.2
Honduras[b]	15.9	24.0	12.3	11.7	16.7	24.7	17.2	16.7	...
Mexico	181.1	151.0	185.8	208.5	183.9	165.1	189.0	194.4	216.1
Nicaragua	21.9	26.9	7.9	7.0	24.0	21.9	8.1	9.8	23.8
Panama[b c]	7.6	8.9	8.3	8.6	8.8	9.0	6.8	7.2	9.2
Dominican Republic	42.8	51.3	29.1	36.5	33.0	45.7	30.2	25.6	37.8
Total	*615.7*	*642.0*	*518.3*	*485.1*	*576.1*	*590.0*	*505.3*	*493.6*	...
Grand total Latin America	2 279.0	2 163.9	2 089.8	2 108.5	2 011.8	2 011.0	2 005.1	2 162.0	...
	(b) IMPORTS *c.i.f.*								
Argentina	305.6	333.5	328.7	342.6	288.7	312.7	316.5	314.7	140.1
Bolivia	12.9	25.0	23.9	30.3	20.9	24.7	20.5	13.5	...
Brazil	320.0	382.7	400.3	385.4	205.8	372.4	401.1	373.6	330.5
Colombia[d]	91.5	98.2	138.9	148.0	120.9	99.4	89.3	90.4	83.2
Chile	106.9	105.9	112.7	117.0	122.0	105.0	91.0	97.1	...
Ecuador[b]	24.2	25.9	28.0	32.2	27.6	22.8	28.6	25.6	24.3
Paraguay[b]	5.9	8.6	10.0	7.2	10.3	11.3	8.7	7.5	6.3
Peru	86.9	113.3	98.2	101.0	91.7	85.8	84.1	72.6	71.8
Uruguay	58.4	60.0	56.3	51.7	22.9	24.0	31.4	56.3	30.1
Venezuela[b e]	380.1	435.3	478.4	574.3	426.8	388.9	371.3	412.1	...
Total	*1 392.4*	*1 588.4*	*1 675.4*	*1 789.7*	*1 337.6*	*1 447.4*	*1 442.5*	*1 563.4*	...
Costa Rica[a]	21.9	27.4	25.9	27.6	24.4	25.3	24.3	25.3	22.2
Cuba[a]	231.2	228.3	209.1	225.6	233.0	213.2	197.5	211.3	...
El Salvador	30.0	28.8	28.2	28.0	27.4	26.6	27.4	26.2	24.5
Guatemala[a]	38.3	37.9	37.4	33.7	38.0	38.2	37.3	36.0	33.0
Haiti	11.5	8.4	8.0	10.9	11.0	10.6	10.0	8.9	7.5
Honduras[a]	18.8	20.2	19.4	20.6	17.5	18.9	19.2	21.2	...
Mexico[a]	270.4	299.4	296.1	289.3	288.6	316.0	272.2	251.8	227.9
Nicaragua	16.5	18.6	25.6	20.1	15.8	17.5	24.4	20.2	15.8
Panama[a]	26.3	28.6	26.9	35.2	28.5	25.0	26.2	29.8	24.8
Dominican Republic	32.5	32.4	31.6	39.5	34.8	35.2	39.3	39.4	37.2
Total	*697.4*	*730.0*	*708.2*	*730.5*	*719.0*	*726.5*	*677.8*	*670.1*	...
Grand total Latin America	2 089.8	2 318.4	2 383.6	2 520.2	2 056.6	2 173.9	2 120.3	2 133.5	...

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

a b and c See corresponding notes in table 16.

d In 1957 the sum of the quarterly figures do not coincide with annual totals in table 16.

e Data do not include a revaluation of exports on order.

Table 25

QUANTUM OF EXPORTS AND IMPORTS

(Indices: 1955 = 100)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
				(a) EXPORTS							
Argentina	144 [a]	96 [a]	118 [a]	93	65	105	113	100	112	119	129
Bolivia	116	109	103	113	113	111	97	100	100	104	74
Brazil	126	122	100	108	91	99	88	100	108	99	95
Colombia	92	91	80	87	89	113	100	100	92	87	96
Chile	104	94	90	93	98	85	96	100	104	111	108
Ecuador	62	61	79	69	89	83	95	100	103	120	123
Paraguay	113	130	136	115	96	112	102	100	128	120	128
Peru	57	58	69	70	77	86	93	100	112	114	125*
Uruguay	97	106	130	89	104	135	126	100	126	73	97
Venezuela	63	61	69	78	83	82	88	100	115	129	112
Total	98	89	90	90	85	95	95	*100*	*110*	*112*	*109*
Costa Rica	94	89	83	83	102	106	98	100	76	100	132
Cuba	108	92	99	107	98	110	90	100	113	115	107
El Salvador	84	95	89	84	88	90	86	100	103	127	128
Guatemala	108	94	94	87	94	96	108	100	111	100	86
Haiti	125	130	126	124	135	106	152	100	123	97	131
Honduras	151	148	149	139	154	143	110	100	144	137	158
Mexico	130	105	106	102	108	80	84	100	102	94	101
Nicaragua	40	32	51	51	64	70	69	100	79	91	101
Panama	78	78	71	73	70	78	84	100	88	110	104
Dominican Republic	67	77	76	80	93	94	92	100	109	113	111
Total	*111*	*96*	*98*	*99*	*101*	*94*	*88*	*100*	*105*	*106*	*109*
Grand total Latin America	*102*	*91*	*92*	*92*	*89*	*95*	*94*	*100*	*108*	*110*	*109*
				(b) IMPORTS							
Argentina	163 [a]	113 [a]	103 [a]	124	94	74	86	100	96	117	118
Bolivia	99	106	75	106	108	84	82	100	100	126	112
Brazil	88	88	101	152	144	105	130	100	98	120	114
Colombia	61	50	65	61	62	86	98	100	91	70	60
Chile	95	111	84	96	96	92	93	100	93	120	114
Peru	53	61	66	94	93	99	85	100	118	130	108
Uruguay	91	83	99	132	94	95	137	100	93	100	96
Venezuela	81	81	71	73	77	85	94	100	108	147	128
Total	98	87	86	*107*	98	89	*103*	*100*	*99*	*118*	*108*
Costa Rica	46	50	57	65	74	88	93	100	103	113	103
Cuba	80	78	102	111	108	90	94	100	117	157	142
El Salvador	44	45	58	67	72	77	96	100	112	121	113
Guatemala	64	68	75	77	71	76	81	100	126	138	138
Haiti	67	82	99	98	120	106	117	100	115	97	99
Honduras	70	78	72	94	114	107	95	100	116	130	131
Mexico	73	75	76	100	97	94	94	100	118	123	118
Nicaragua	33	32	39	46	63	70	102	100	87	94	96
Panama	86	85	86	86	95	92	99	100	111	132	119
Dominican Republic	73	53	55	67	106	89	88	100	113	122	133
Total	*71*	*71*	*80*	*95*	*98*	*91*	*94*	*100*	*116*	*132*	*125*
Grand total Latin America [b]	*90*	*82*	*84*	*104*	*98*	*90*	*100*	*100*	*104*	*122*	*113*

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, Vol. IV, No. 1 and notes in table 16.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 26

UNIT VALUE OF EXPORTS AND IMPORTS

(Indices: 1955 = 100)

Country	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
				(a) Exports							
Argentina	118[a]	114[a]	104[a]	135	112	112	98	100	91	88	83
Bolivia	97	93	91	134	125	101	100	100	107	93	87
Brazil	65	63	94	115	109	109	125	100	96	99	92
Colombia	54	60	85	91	91	90	113	100	101	101	81
Chile	67	66	66	84	98	102	89	100	110	87	76
Ecuador	84	73	93	94	100	102	120	100	102	93	89
Paraguay	71	72	69	94	93	64	95	100	82	78	76
Peru	104	95	104	132	113	93	98	100	103	104	86[b]
Uruguay	100	99	107	144	109	109	108	100	91	95	78
Venezuela	86	86	89	91	92	92	100	100	97	96	108
Total	*84*	*80*	*92*	*108*	*101*	*101*	*106*	*100*	*97*	*95*	*92*
Costa Rica	60	65	80	94	88	94	107	100	110	103	86
Cuba	110	106	111	123	115	100	101	100	100	121	119
El Salvador	50	53	71	94	92	92	114	100	103	84	102
Guatemala	59	64	79	92	96	98	92	100	105	107	116
Haiti	72	70	86	115	115	104	122	100	95	98	83
Honduras	69	74	80	87	90	97	107	100	104	97	95
Mexico	43	50	63	79	78	93	99	100	101	99	92
Nicaragua	64	69	72	100	92	90	110	100	102	98	86
Panama	78	82	89	93	89	91	103	100	98	92	92
Dominican Republic	108	82	100	129	108	97	113	100	99	124	106
Total	*69*	*71*	*83*	*99*	*94*	*96*	*102*	*100*	*101*	*108*	*100*
Grand total Latin America	*80*	*77*	*90*	*106*	*99*	*100*	*105*	*100*	*98*	*98*	*94*
				(b) Imports							
Argentina	82[a]	88[a]	80[a]	102	107	92	97	100	100	95	89
Bolivia	96	103	104	113	120	113	107	100	102	89	86
Brazil	98	98	84	102	107	96	96	100	96	95	91
Colombia	83	80	84	102	100	95	102	100	108	103	99
Chile	76	73	79	91	102	97	98	100	100	98	97
Peru	106	91	89	93	104	99	98	100	103	103	104
Uruguay	98	98	90	104	111	91	88	100	98	100	97
Venezuela	90	90	86	96	101	99	100	100	106	117	114
Total[c]	*89*	*90*	*84*	*100*	*105*	*96*	*98*	*100*	*102*	*102*	*98*
Costa Rica	104	99	92	98	104	96	99	100	101	104	107
Cuba	112	99	94	107	108	104	100	100	96	90	95
El Salvador	103	98	91	102	104	102	99	100	102	104	104
Guatemala	103	96	92	101	103	101	103	100	106	103	105
Honduras	86	87	87	91	94	94	100	100	93	98	95
Mexico	86	73	82	93	94	97	95	100	103	106	108
Nicaragua	122	110	106	111	106	103	96	100	113	124	117
Panama	96	94	93	100	101	100	95	100	100	101	104
Dominican Republic	90	85	80	88	92	98	95	100	98	98	99
Total	*98*	*87*	*89*	*99*	*100*	*100*	*97*	*100*	*100*	*100*	*103*
Grand total Latin America[c,d]	*91*	*89*	*85*	*100*	*104*	*97*	*98*	*100*	*101*	*101*	*100*

Sources and methods: See *Explanatory Notes*, Vol. III, No. 2, Vol. IV, No. 1 and notes in table 16.

[a] Provisional data.

[b] January-September.

[c] Including estimates for Ecuador and Paraguay.

Table 27

QUARTERLY EXPORT INDICES

(1955 = 100)

Country	1958 I	1958 II	1958 III	1958 IV	1959 I	1958 I	1958 II	1958 III	1958 IV	1959 I
	(a) Quantum					(b) Unit value				
Argentina	124	128	114	148	121	84	85	84	80	81
Bolivia	65	80	85	66	71	92	91	78	87	94
Brazil	76	90	97	117	121	100	95	90	85	77
Colombia	85	75	118	108	93	85	86	78	76	74
Chile	116	76	108	134	...	75	74	75	78	...
Ecuador	95	97	176	123	102	93	94	85	87	87
Paraguay	86	142	156	140	83	69	73	74	78	67
Peru	106	115	134	146	100	86	85	87	86	88
Uruguay	120	77	76	115	126	81	81	78	72	67
Venezuela	121	118	122	88	...	98	99	98	148	...
Total	*105*	*103*	*113*	*114*	...	*91*	*92*	*89*	*98*	...
Costa Rica	136	159	85	148	...	94	89	86	77	...
Cuba	105	118	115	92	...	120	125	115	114	...
El Salvador	166	129	85	134	...	90	88	83	75	...
Guatemala	147	129	72	117	...	89	89	84	78	...
Haiti	...	...	...	...	...	...	...	...	...	...
Honduras	148	234	145	141	...	94	88	99	99	...
Mexico	99	90	110	106	...	95	93	88	93	...
Nicaragua	147	137	52	68	...	89	87	84	75	...
Panama	115	117	90	94	...	92	93	91	93	..
Dominican Republic	108	151	96	87	...	107	104	110	103	...
Total	*112*	*115*	*105*	*104*	...	*102*	*103*	*98*	*96*	...
Grand total Latin America	*107*	*106*	*111*	*111*	...	*94*	*95*	*91*	*97*	...

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, Vol. IV, No. 1, and notes in tables 16 and 17.

Table 28

LATIN AMERICAN EXPORTS BY PRINCIPAL COMMODITY GROUPS

(Millions of dollars at 1955 prices)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Vegetable products	*4 214.8*	*4 015.7*	*3 830.7*	*3 950.7*	*3 628.4*	*4 137.6*	*3 955.7*	*4 098.4*	*4 276.2*	*4 034.9*	*4 170.1*
Of which: Brazil	1 534.8	1 564.7	1 259.2	1 357.1	1 158.5	1 282.7	1 140.6	1 263.3	1 407.5	1 204.1	1 089.3
Cuba	621.4	531.8	549.4	582.9	528.4	579.4	482.0	536.5	616.5	602.9	570.8
Argentina	473.3 [a]	332.1 [a]	487.2 [a]	436.2	196.4	505.5	645.5	453.3	431.2	488.6	534.7
Colombia	479.7	467.0	388.8	417.2	435.6	573.9	500.9	510.9	447.3	424.2	481.5
Mexico	342.5	350.1	380.0	402.4	451.6	339.6	349.8	443.8	468.4	396.2	455.6
Peru	46.3	47.5	61.3	54.1	71.3	79.3	75.2	78.1	98.0	79.9	105.2*
Animal products	*1 127.6*	*806.2*	*898.9*	*653.8*	*641.2*	*749.8*	*639.3*	*680.9*	*872.6*	*820.3*	*940.1*
Of which: Argentina	743.5 [a]	480.3 [a]	529.0 [a]	378.0	362.6	423.0	367.3	434.8	560.5	556.2	600.2
Uruguay	153.7	150.4	224.0	131.3	150.7	215.1	174.6	133.0	187.6	112.6	144.3
Fuels	*1 327.0*	*1 238.8*	*1 425.3*	*1 588.4*	*1 659.2*	*1 609.5*	*1 739.3*	*1 939.6*	*2 209.8*	*2 422.6*	*2 070.8*
Of which: Venezuela	1 143.3	1 821.2	1 266.6	1 434.4	1 513.4	1 478.2	1 596.2	1 800.3	2 062.4	2 291.9	1 957.6
Colombia	48.3	60.7	70.9	81.2	78.3	81.2	77.5	65.0	74.9	72.6	65.6
Mineral products	*1 085.1*	*888.3*	*901.6*	*888.2*	*922.3*	*840.5*	*902.7*	*934.0*	*1 009.9*	*1 157.8*	*1 034.9*
Of which: Chile	431.2	375.7	358.2	356.0	376.8	325.4	382.9	400.0	423.6	461.2	423.5
Mexico	405.7	291.9	296.5	249.6	261.1	198.5	208.8	191.9	200.4	211.1	191.3
Bolivia	115.6	108.4	102.9	112.4	112.5	111.1	96.5	99.8	99.8	103.6	74.0
Peru	40.3	48.7	57.0	70.0	70.6	80.1	95.4	102.0	111.4	124.7	105.2*
Other products	*362.4*	*289.2*	*269.5*	*295.2*	*255.8*	*256.2*	*237.4*	*334.7*	*299.0*	*375.8*	*471.7*
Total Latin America	*8 116.9*	*7 238.2*	*7 326.0*	*7 376.3*	*7 106.9*	*7 593.6*	*7 474.4*	*7 987.6*	*8 667.5*	*8 811.4*	*8 687.6*

SOURCES AND METHODS: See *Explanatory Notes*. Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

Table 29

VALUE OF EXPORTS AND IMPORTS

(Millions of dollars at 1955 prices)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
					(a) Exports *f.o.b.*						
Argentina	1 334.7 [a]	888.8 [a]	1 097.8 [a]	867.5	603.1	978.1	1 051.2	928.6	1 040.4	1 108.9	1 194.8
Bolivia	115.6	108.4	102.9	112.4	112.5	111.1	96.5	99.8	99.8	103.6	74.0
Brazil	1 795.6	1 737.3	1 425.3	1 533.0	1 295.2	1 411.5	1 246.2	1 423.2	1 544.3	1 410.2	1 353.5
Colombia	536.1	532.9	465.2	506.6	517.7	659.4	582.5	583.9	535.0	505.8	561.9
Chile	494.2	446.4	428.6	442.5	463.7	405.4	454.9	475.8	494.5	529.5	515.3
Ecuador	55.1	45.0	69.6	60.9	78.7	73.5	83.8	88.3	91.2	106.3	108.4
Paraguay	39.6	45.6	47.7	40.3	33.6	39.5	35.7	35.1	45.0	42.2	45.0
Peru	153.5	157.5	186.1	187.9	208.2	230.4	251.5	269.4	300.9	307.9	337.2*
Uruguay	178.1	193.9	238.0	164.1	191.4	247.2	231.3	183.7	231.9	134.1	178.2
Venezuela	1 206.0	1 164.5	1 311.1	1 486.3	1 585.0	1 565.4	1 685.0	1 912.1	2 194.3	2 466.7	2 145.7
Total	*5 908.5*	*5 320.3*	*5 372.3*	*5 401.5*	*5 089.1*	*5 721.5*	*5 718.6*	*5 999.9*	*6 577.3*	*6 715.2*	*6 514.0*
Costa Rica	76.4	72.1	67.4	67.5	83.0	85.3	78.6	80.5	60.9	80.3	106.2
Cuba	655.7	561.4	601.5	651.4	596.7	669.6	549.7	607.2	687.9	700.2	651.4
El Salvador	89.9	102.4	95.8	90.5	94.8	96.4	92.3	106.9	109.7	136.3	137.3
Guatemala	114.5	99.6	99.4	91.5	98.6	103.9	97.5	106.4	111.5	113.8	123.6
Haiti	41.4	51.3	44.9	44.2	45.4	36.7	44.6	36.0	44.3	34.9	47.3
Honduras	78.6	74.1	68.9	75.8	68.0	69.0	52.9	48.1	69.4	65.1	80.2
Mexico	1 021.5	819.9	829.2	801.6	855.9	627.6	657.7	783.4	797.0	735.2	793.6
Nicaragua	28.9	22.7	36.7	36.7	45.9	50.4	49.6	71.7	56.4	65.2	72.4
Panama	25.8	25.5	23.5	24.0	23.1	26.0	27.8	33.2	29.0	36.4	34.4
Dominican Republic	75.7	88.9	86.4	91.6	106.4	107.3	105.0	114.3	124.0	128.9	127.2
Total	*2 208.4*	*1 917.9*	*1 953.7*	*1 974.8*	*2 017.8*	*1 872.1*	*1 755.8*	*1 987.7*	*2 090.2*	*2 096.2*	*2 173.6*
Grand total Latin America	*8 116.9*	*7 238.2*	*7 326.0*	*7 376.3*	*7 106.9*	*7 593.6*	*7 474.4*	*7 987.6*	*8 667.5*	*8 811.4*	*8 687.6*
					(b) Imports *c.i.f.*						
Argentina	1 906.1 [a]	1 324.9 [a]	1 202.9 [a]	1 454.9	1 100.2	867.6	1 006.4	1 172.6	1 123.1	1 373.5	1 383.1
Bolivia	81.9	87.7	61.5	87.3	89.1	69.1	68.0	82.4	82.4	103.7	92.6
Brazil	1 151.0	1 143.4	1 311.4	1 976.4	1 877.2	1 372.0	1 699.2	1 303.8	1 280.3	1 563.5	1 490.8
Colombia	405.8	331.7	436.5	406.9	416.6	574.8	658.1	669.3	606.8	470.0	402.5
Chile	356.9	418.0	315.4	362.4	363.7	346.1	350.3	377.2	352.4	453.0	428.0
Peru	157.6	183.4	196.5	281.3	277.9	296.5	255.0	299.5	354.4	388.6	322.8
Uruguay	204.5	185.9	223.6	296.4	212.2	213.0	308.9	225.0	208.9	225.9	139.3
Venezuela	922.9	888.0	780.1	793.6	841.2	932.3	1 024.0	1 092.2	1 174.6	1 600.9	1 403.2
Total [b]	*5 266.5*	*4 656.6*	*4 606.1*	*5 756.0*	*5 278.7*	*4 775.0*	*5 531.7*	*5 363.1*	*5 303.7*	*6 317.2*	*5 799.5*
Costa Rica	40.5	43.9	50.0	57.1	65.1	77.0	81.6	87.5	90.2	98.9	82.6
Cuba	507.1	490.9	643.5	704.4	687.0	568.3	598.2	633.1	741.0	995.1	899.2
El Salvador	40.1	41.2	53.0	61.3	66.4	71.0	87.9	91.9	102.8	111.0	103.7
Guatemala	66.2	70.7	77.3	79.8	73.6	79.0	83.9	103.5	130.3	142.5	142.5
Haiti	26.7	32.3	39.1	38.9	47.6	42.1	46.2	39.6	45.5	38.4	39.1
Honduras	43.3	48.4	44.8	58.2	70.4	66.1	59.0	62.0	71.8	80.5	81.0
Mexico	642.0	658.9	675.8	880.8	859.9	834.2	830.0	883.7	1 042.9	1 087.6	1 040.5
Nicaragua	22.9	22.0	26.9	31.7	44.1	49.0	70.8	69.6	60.6	65.1	66.5
Panama	76.0	74.9	75.7	75.6	83.6	81.0	87.3	88.0	97.8	116.1	104.8
Dominican Republic	82.3	60.1	62.4	75.7	120.4	100.4	99.1	113.2	128.3	138.3	150.4
Total	*1 547.1*	*1 543.3*	*1 748.5*	*2 063.5*	*2 118.1*	*1 968.1*	*2 044.0*	*2 172.1*	*2 511.2*	*2 873.5*	*2 720.3*
Grand total Latin America [b]	*6 813.6*	*6 199.9*	*6 354.6*	*7 819.5*	*7 396.8*	*6 743.1*	*7 575.7*	*7 535.2*	*7 814.9*	*9 190.7*	*8 519.8*

Sources and methods: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 30

IMPORTS OF CONSUMER GOODS

(Millions of dollars at 1955 prices)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
(a) Non-durable											
Argentina	143.6 [a]	89.9 [a]	69.2 [a]	79.7	54.9	48.2	57.8	73.3	74.1	56.4	85.0
Bolivia	16.3	18.6	16.7	23.7	20.1	18.1	17.7	19.6	19.2	28.6	22.4
Brazil	86.0	81.5	88.4	129.4	127.6	93.6	115.1	96.1	97.8	104.0	70.1
Colombia	63.0	46.6	63.8	49.4	40.6	53.5	82.3	67.2	57.3	41.5	47.9
Chile	34.7	35.8	31.8	42.2	37.4	27.9	31.0	39.2	36.5	51.9	70.4
Peru	30.0	36.9	42.3	53.0	57.5	48.2	48.1	56.9	63.4	77.1	65.7
Uruguay	33.7	39.4	39.0	36.8	29.9	26.9	37.5	26.1	19.4	24.6	15.2
Venezuela	202.7	194.4	201.3	184.0	178.5	188.3	200.3	201.2	211.4	232.7	276.7
Total [b]	*625.9*	*568.4*	*574.9*	*625.4*	*575.2*	*535.3*	*639.5*	*619.1*	*613.1*	*655.7*	*692.1*
Costa Rica	11.6	15.3	16.9	16.8	19.8	21.4	22.9	22.3	27.4	26.2	24.6
Cuba	186.4	211.1	240.4	243.0	224.3	203.1	208.4	196.2	217.6	232.0	218.2
El Salvador	12.5	12.4	16.0	18.7	23.2	24.4	27.8	27.8	31.4	36.2	34.0
Guatemala	16.9	21.4	25.3	24.7	26.2	27.6	28.3	31.8	35.8	34.8	38.8
Honduras	12.8	15.4	14.7	17.6	20.2	17.3	18.3	21.0	21.6	27.3	28.6
Mexico	61.5	58.7	56.0	62.9	82.0	85.5	67.8	61.6	73.4	69.8	78.2
Nicaragua	6.4	5.1	8.1	7.0	11.6	10.1	14.3	14.5	12.9	14.3	15.2
Panama	28.4	30.7	33.2	33.1	39.9	36.4	36.5	35.9	38.8	46.2	41.4
Total [c]	*368.6*	*402.9*	*447.7*	*465.8*	*503.0*	*470.5*	*470.9*	*456.3*	*509.7*	*539.8*	*532.4*
Grand total Latin America [b c]	*994.5*	*971.3*	*1 021.9*	*1 091.2*	*1 078.2*	*1 005.8*	*1 110.4*	*1 075.4*	*1 122.8*	*1 195.5*	*1 124.1*
(b) Durable											
Argentina	143.6 [a]	59.6 [a]	46.9 [a]	104.2	56.4	30.7	21.6	34.0	71.4	95.0	109.8
Bolivia	4.5	4.5	3.4	5.4	7.0	3.4	2.7	4.5	5.4	6.3	8.5
Brazil	103.9	90.1	80.6	180.0	112.5	27.9	36.8	23.3	23.3	30.9	44.2
Colombia	25.8	12.8	29.5	23.7	28.5	45.5	52.2	47.6	23.0	14.1	9.5
Chile	8.1	14.5	6.6	18.1	13.8	9.1	5.6	10.4	11.1	16.4	13.4
Peru	6.5	6.8	11.5	25.3	19.8	21.2	12.6	21.8	29.1	30.5	26.0
Uruguay	10.8	10.0	14.8	19.0	11.2	7.2	13.5	10.4	6.3	11.7	3.0
Venezuela	46.3	50.3	41.9	40.5	43.3	50.5	58.5	71.3	55.7	82.9	94.9
Total [b]	*356.7*	*256.7*	*242.6*	*425.2*	*302.6*	*204.4*	*217.7*	*240.5*	*237.5*	*301.7*	*323.4*
Costa Rica	3.6	2.1	2.9	4.0	5.8	7.7	8.4	7.7	7.9	9.4	8.7
Cuba	60.7	51.7	67.4	81.3	80.3	57.0	60.8	72.0	80.8	104.1	96.3
El Salvador	6.0	5.5	7.2	8.1	7.7	8.1	8.8	11.6	11.4	12.0	11.0
Guatemala	7.9	7.7	9.2	8.8	7.0	8.6	9.3	13.7	18.0	21.8	23.1
Honduras	3.9	4.6	4.1	5.2	6.0	5.0	5.8	7.1	6.3	7.0	7.1
Mexico	43.8	47.2	50.6	67.8	66.3	70.4	75.8	74.6	86.0	79.4	75.5
Nicaragua	4.3	3.5	3.5	4.5	4.7	5.7	9.2	7.8	6.2	6.1	5.8
Panama	7.4	7.7	8.2	7.7	6.8	7.7	8.8	10.7	11.6	13.7	12.3
Total [c]	*146.7*	*137.9*	*161.1*	*196.9*	*198.3*	*187.7*	*203.7*	*224.7*	*248.0*	*274.0*	*260.4*
Grand total Latin America [b c]	*503.4*	*394.6*	*403.7*	*622.1*	*500.9*	*392.1*	*421.4*	*465.2*	*485.5*	*575.7*	*583.8*

Sources and methods: See *Explanatory Notes*. Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 31

IMPORTS OF RAW MATERIALS AND INTERMEDIATE PRODUCTS

(Millions of dollars at 1955 prices)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
(a) Metallic											
Argentina	176.9 [a]	144.0 [a]	157.1 [a]	192.3	109.0	65.3	159.9	209.3	158.0	179.6	246.0
Bolivia	2.9	2.3	1.3	2.5	2.5	1.6	2.0	2.3	2.5	2.4	2.0
Brazil	65.6	78.7	85.1	128.5	107.0	93.1	159.2	82.6	86.9	113.4	83.9
Colombia	14.8	11.6	17.6	19.6	16.9	23.6	27.7	28.2	35.9	28.6	15.2
Chile	18.4	22.8	18.0	15.9	14.7	16.9	10.6	12.9	13.0	12.6	13.1
Peru	6.8	8.6	7.7	11.1	10.9	12.3	12.5	14.3	17.7	16.2	14.5
Uruguay	10.7	9.4	14.7	16.1	11.5	14.2	18.4	13.1	15.3	18.8	13.1
Venezuela	49.3	42.1	36.9	30.2	35.0	42.5	47.9	44.7	59.1	83.5	80.8
Total [b]	*348.9*	*323.3*	*341.7*	*419.8*	*311.2*	*273.3*	*444.4*	*412.5*	*393.3*	*460.7*	*474.1*
Costa Rica	1.4	1.5	1.5	1.5	1.8	2.5	2.2	1.7	1.6	1.9	2.0
Cuba	35.2	21.1	28.0	35.2	34.1	20.8	24.0	26.6	35.1	38.1	36.0
El Salvador	0.8	0.9	1.2	1.3	1.4	1.5	1.7	2.0	2.2	2.3	2.1
Guatemala	2.1	2.4	2.0	2.8	1.7	2.2	2.3	3.0	4.1	5.8	3.8
Honduras	0.8	0.9	0.9	1.2	1.3	1.0	1.0	1.2	1.7	1.7	1.6
Mexico	64.9	67.9	70.8	115.0	120.2	98.7	88.8	92.0	133.5	117.6	113.7
Nicaragua	1.3	1.2	0.9	1.3	1.4	2.1	2.4	2.0	2.5	2.2	2.4
Panama	1.2	1.1	1.1	0.9	0.8	1.1	2.6	1.5	1.8	2.2	2.0
Total [c]	*113.3*	*101.2*	*111.5*	*165.6*	*169.5*	*138.1*	*135.2*	*139.5*	*188.7*	*181.1*	*174.3*
Grand total Latin America [bc]	*462.2*	*424.5*	*453.2*	*585.4*	*480.7*	*411.4*	*579.6*	*552.0*	*582.0*	*641.8*	*648.4*
(b) Non-metallic											
Argentina	470.7 [a]	412.5 [a]	371.2 [a]	461.2	309.7	246.3	314.2	376.0	303.4	418.6	423.4
Bolivia	28.3	27.3	19.0	27.0	26.0	24.0	23.2	26.0	22.6	30.2	23.0
Brazil	264.0	283.2	342.7	454.4	378.0	392.9	475.0	411.0	406.3	426.1	418.9
Colombia	96.8	95.8	134.8	130.7	117.0	136.5	165.0	182.0	193.0	178.6	146.8
Chile	131.6	112.0	113.1	119.9	130.8	119.7	150.7	140.7	116.8	137.2	128.7
Peru	37.8	45.5	47.6	54.8	59.9	65.7	66.9	76.0	82.7	89.3	83.9
Uruguay	58.1	60.3	69.4	81.4	62.7	73.0	89.5	79.8	79.9	85.8	58.5
Venezuela	87.2	93.3	116.6	117.7	122.7	154.7	158.9	162.8	170.2	198.8	198.6
Total [b]	*1 193.1*	*1 151.7*	*1 232.1*	*1 467.5*	*1 228.7*	*1 237.5*	*1 481.9*	*1 485.9*	*1 403.1*	*1 596.7*	*1 514.3*
Costa Rica	11.1	12.4	13.3	15.9	17.2	16.6	19.1	21.9	22.5	24.6	26.1
Cuba	110.7	96.3	128.7	135.2	132.3	108.2	108.8	155.9	174.1	218.6	195.5
El Salvador	7.5	7.8	10.5	11.6	14.8	15.8	21.6	20.6	23.8	23.9	24.6
Guatemala	17.1	15.7	17.8	19.1	18.4	18.3	19.9	21.3	23.5	28.2	30.3
Honduras	5.9	7.6	7.2	9.8	11.9	9.8	11.1	14.1	17.0	17.7	17.2
Mexico	149.6	172.6	195.6	231.2	221.8	218.8	226.1	232.0	263.7	315.1	318.5
Nicaragua	4.1	3.2	5.9	7.1	8.9	10.4	15.5	18.9	16.9	17.8	18.3
Panama	11.6	11.8	12.1	12.8	12.1	10.4	11.2	13.2	14.6	19.0	17.3
Total [c]	*339.5*	*344.4*	*412.3*	*467.8*	*469.6*	*433.2*	*459.1*	*530.0*	*587.7*	*701.8*	*689.6*
Grand total Latin America [bc]	*1 532.6*	*1 496.1*	*1 644.4*	*1 935.3*	*1 698.3*	*1 670.7*	*1 941.0*	*2 015.9*	*1 990.8*	*2 298.5*	*2 203.9*

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 32

IMPORTS OF CAPITAL GOODS

(Millions of dollars at 1955 prices)

Country	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
(a) CONSTRUCTION MATERIALS											
Argentina	151.0 [a]	125.4 [a]	100.3 [a]	81.4	61.6	33.6	54.3	48.5	20.3	19.8	23.8
Bolivia	3.1	7.8	5.0	3.5	3.8	2.0	3.0	4.7	3.6	4.7	6.5
Brazil	37.4	50.9	43.7	69.1	75.6	63.3	75.2	42.9	17.3	23.3	23.4
Colombia	28.3	22.4	30.0	27.1	25.4	45.0	54.6	51.9	47.9	37.8	30.4
Chile	16.3	28.5	21.5	18.9	18.8	20.5	9.8	13.1	15.2	20.2	20.1
Peru	8.2	8.3	9.7	16.2	16.4	23.0	17.5	20.7	23.5	21.2	16.7
Uruguay	10.8	10.9	13.6	14.1	8.4	7.5	13.4	8.4	7.5	8.4	2.8
Venezuela	80.2	87.1	60.2	67.0	62.6	69.9	80.3	82.7	98.0	142.2	120.6
Total [b]	339.4	346.9	288.3	301.7	277.2	269.2	315.5	279.3	238.0	282.9	249.5
Costa Rica	3.0	3.8	4.5	5.8	5.2	8.8	7.9	8.7	9.3	13.2	9.6
Cuba	15.6	16.6	19.3	28.9	20.0	19.7	22.5	31.4	30.3	30.4	29.3
El Salvador	1.2	1.5	2.1	2.3	3.9	5.1	6.4	9.1	9.8	10.9	8.4
Guatemala	2.3	3.3	4.7	3.5	2.7	3.8	4.3	5.4	8.1	9.6	8.9
Honduras	5.2	4.5	4.3	8.1	9.1	5.3	3.3	3.6	7.1	6.4	4.7
Mexico	53.1	52.8	52.6	75.5	70.1	48.0	42.8	52.4	62.8	64.8	59.1
Nicaragua	1.0	1.6	1.3	1.7	3.3	4.9	7.3	4.2	3.6	4.6	3.8
Panama	10.9	7.2	6.4	5.5	4.4	4.4	5.3	5.6	7.1	8.3	7.4
Total [c]	102.9	98.3	101.9	136.8	131.0	106.8	107.3	130.7	148.6	159.3	142.6
Grand total Latin America [b c]	442.3	445.2	390.2	438.5	408.2	376.0	422.8	410.0	386.6	442.2	392.1
(b) AGRICULTURAL EQUIPMENT AND MACHINERY											
Argentina	68.1 [a]	29.6 [a]	42.5 [a]	42.4	45.9	45.9	21.9	43.4	57.6	33.2	45.5
Bolivia	0.7	1.0	0.4	0.9	0.9	0.8	0.8	2.4	3.0	1.1	1.4
Brazil	34.0	57.1	123.9	98.7	91.7	71.9	133.4	42.5	47.7	68.4	51.8
Colombia	13.4	20.4	25.4	20.1	16.2	18.3	35.6	37.5	25.8	14.4	24.7
Chile	11.2	10.1	4.7	11.0	9.4	9.9	15.0	17.6	12.1	12.0	7.9
Peru	7.2	13.1	9.3	12.7	15.1	15.9	10.8	13.3	13.3	16.8	13.2
Uruguay	8.5	3.0	6.5	9.1	4.5	3.0	4.5	3.1	2.6	2.8	0.4
Venezuela	23.4	26.3	20.7	22.8	18.2	24.7	37.9	33.3	21.9	26.9	30.9
Total [b]	168.9	163.0	235.5	220.2	204.6	193.0	263.6	196.9	187.6	179.7	179.8
Costa Rica	1.0	1.2	1.3	1.8	2.1	3.0	2.3	2.6	3.0	3.7	3.0
Cuba	12.6	12.0	15.6	20.1	13.8	9.6	10.4	10.9	11.7	16.3	15.1
El Salvador	0.8	0.7	0.9	1.2	1.9	1.8	1.7	2.2	2.1	2.2	1.9
Guatemala	1.7	2.0	2.0	3.1	3.1	2.0	2.8	4.2	8.5	6.5	4.8
Honduras	1.2	1.2	1.3	2.1	2.6	2.2	1.7	2.3	2.6	2.9	3.0
Mexico	32.1	31.7	31.4	41.2	30.4	29.8	32.1	44.2	42.4	32.9	35.7
Nicaragua	1.4	1.6	1.4	2.9	3.3	4.0	7.6	4.7	0.5	1.4	2.2
Panama	1.0	1.3	1.2	0.9	1.8	1.2	1.5	1.5	2.0	1.4	1.6
Total [c]	52.9	53.0	56.3	75.0	60.9	55.7	62.4	74.4	74.9	68.5	69.1
Grand total Latin America [b c]	221.8	216.0	291.8	295.2	265.5	248.7	326.0	271.3	262.5	248.2	248.9

(Continued)

Table 32 *(Continued)*

IMPORTS OF CAPITAL GOODS

(Millions of dollars at 1955 prices)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
(c) INDUSTRIAL EQUIPMENT AND MACHINERY											
Argentina	333.0 [a]	213.9 [a]	176.8 [a]	194.6	139.9	97.8	113.6	111.1	110.4	118.2	80.7
Bolivia	13.4	14.5	7.6	12.1	15.0	9.6	10.1	13.3	15.2	20.0	18.1
Brazil	228.1	239.7	241.4	390.3	459.5	267.8	281.2	204.4	181.7	286.4	221.9
Colombia	107.4	86.0	83.1	86.8	111.6	177.8	152.5	149.7	145.9	105.7	87.5
Chile	53.1	75.6	71.2	67.6	72.0	74.9	48.4	55.0	68.5	100.5	91.9
Peru	43.3	42.1	36.9	55.4	65.7	74.4	54.6	63.3	80.9	87.8	65.7
Uruguay	37.5	23.0	32.2	53.8	30.3	44.4	68.6	43.9	30.8	37.9	13.8
Venezuela	264.5	252.7	160.4	208.5	242.6	234.7	246.8	286.5	356.4	585.6	405.5
Total [b]	*1 092.1*	*961.9*	*821.0*	*1 083.6*	*1 152.1*	*996.6*	*999.0*	*946.4*	*1 008.1*	*1 363.0*	*1 005.6*
Costa Rica	4.1	3.1	4.6	5.2	6.1	7.7	9.8	14.4	10.7	9.1	9.9
Cuba	43.7	37.9	37.6	47.3	48.0	34.2	37.8	66.8	115.2	213.7	171.4
El Salvador	5.3	5.9	7.1	8.8	6.0	5.9	8.7	7.7	10.0	9.6	8.9
Guatemala	7.5	6.7	5.6	6.6	5.6	7.2	6.5	10.6	16.0	16.0	15.8
Honduras	5.3	5.2	3.7	5.0	7.7	5.9	4.6	4.9	7.1	8.2	8.7
Mexico	180.0	167.9	155.8	210.6	198.1	199.5	195.4	200.5	251.6	275.9	242.2
Nicaragua	1.5	2.6	2.4	3.0	5.2	6.0	7.3	8.1	8.8	9.8	9.5
Panama	6.5	5.7	4.3	4.1	5.9	7.5	7.0	6.2	8.3	10.5	9.5
Total [c]	*262.4*	*242.1*	*228.1*	*297.5*	*297.4*	*292.9*	*295.6*	*337.6*	*457.8*	*575.1*	*496.9*
Grand total Latin America [b c]	*1 354.5*	*1 204.0*	*1 049.1*	*1 381.1*	*1 449.5*	*1 289.5*	*1 294.6*	*1 284.0*	*1 465.9*	*1 938.1*	*1 502.5*
(d) TRANSPORT EQUIPMENT AND MACHINERY											
Argentina	216.5 [a]	91.1 [a]	57.5 [a]	90.0	115.6	115.8	68.4	65.8	73.7	187.9	90.0
Bolivia	6.7	6.5	4.5	6.7	8.3	3.7	3.7	6.0	8.0	6.8	7.6
Brazil	206.1	125.5	142.6	316.9	294.2	122.9	144.8	124.4	135.1	249.7	279.0
Colombia	37.0	23.2	39.9	30.3	36.4	41.0	53.2	76.1	53.4	20.4	28.2
Chile	45.3	83.2	19.9	25.5	28.9	25.4	27.0	35.3	43.0	63.3	44.4
Peru	14.5	17.9	27.1	46.1	26.7	29.9	24.4	21.9	29.6	33.3	24.3
Uruguay	14.9	9.1	16.0	33.1	21.8	13.9	21.6	12.1	13.7	19.8	5.1
Venezuela	70.7	66.6	53.8	50.5	68.5	66.1	72.0	86.0	86.6	151.1	91.4
Total [b]	*619.4*	*431.7*	*368.4*	*610.9*	*610.1*	*427.0*	*427.4*	*440.3*	*453.4*	*744.1*	*581.5*
Costa Rica	1.4	1.5	1.5	2.0	2.6	4.1	3.3	3.0	2.1	4.5	1.9
Cuba	9.9	9.1	10.9	12.0	13.9	9.9	7.3	16.7	17.3	23.6	21.7
El Salvador	2.9	3.3	3.7	4.4	3.4	3.5	4.3	5.1	5.3	6.4	4.9
Guatemala	5.0	5.9	4.5	5.3	3.2	2.7	3.3	4.8	6.5	6.7	6.4
Honduras	1.3	1.4	1.3	2.2	3.6	2.8	2.2	2.2	3.4	3.1	3.6
Mexico	19.7	25.1	30.6	41.6	33.3	38.1	38.5	50.0	51.6	48.8	60.0
Nicaragua	0.1	0.2	0.7	0.8	1.2	1.2	2.3	3.3	2.2	2.2	2.1
Panama	2.8	2.7	1.8	2.0	1.9	2.5	3.5	2.4	3.9	3.4	3.2
Total [c]	*47.8*	*52.3*	*58.4*	*74.3*	*71.1*	*73.5*	*71.2*	*93.4*	*99.9*	*108.2*	*114.3*
Grand total Latin America [b c]	*667.2*	*484.0*	*426.8*	*685.2*	*681.2*	*500.5*	*498.6*	*533.7*	*553.3*	*852.3*	*695.8*

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 33

IMPORTS OF FUELS

(Millions of dollars at 1955 prices)

Country	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Argentina	191.2 [a]	151.8 [a]	176.0 [a]	201.2	201.2	181.4	191.3	207.4	250.3	262.0	269.6
Bolivia	5.6	4.8	3.2	4.9	5.0	5.5	4.6	3.1	2.3	2.9	2.3
Brazil	127.4	133.4	159.5	204.5	227.0	233.1	274.9	273.4	280.9	257.3	294.3
Colombia	16.8	11.5	10.5	17.2	21.8	29.7	29.8	24.7	20.7	19.2	9.5
Chile	37.6	34.9	27.6	42.4	37.2	40.7	51.2	51.9	34.8	37.3	36.8
Peru	2.1	3.4	3.6	5.6	4.4	4.5	6.0	9.3	11.6	13.8	10.5
Uruguay	17.3	19.1	15.7	31.6	30.7	21.9	39.8	26.6	32.1	14.4	26.3
Venezuela	10.4	9.1	9.7	12.0	11.6	11.7	15.0	13.9	14.5	16.2	17.7
Total [b]	*411.6*	*371.5*	*408.2*	*523.2*	*542.6*	*533.3*	*619.1*	*615.8*	*651.6*	*628.1*	*672.1*
Costa Rica	3.2	3.1	3.4	4.0	4.2	4.4	5.0	4.9	5.4	5.9	6.5
Cuba	31.0	33.9	39.3	41.8	47.4	44.9	44.6	54.3	56.2	65.5	68.3
El Salvador	2.2	2.1	3.0	3.9	4.0	4.7	5.3	5.4	6.2	6.7	7.1
Guatemala	5.5	5.4	6.0	5.7	5.5	6.4	6.9	8.3	9.5	9.3	10.4
Honduras	5.1	5.5	5.3	5.4	5.9	5.2	3.4	4.1	4.7	5.9	6.3
Mexico	24.0	26.0	28.0	27.1	35.7	42.4	60.8	69.8	76.3	82.0	55.9
Nicaragua	2.4	2.7	2.3	2.9	3.8	3.8	3.8	5.0	4.6	3.9	5.3
Panama	4.8	5.0	5.4	6.4	7.5	7.7	9.2	8.6	8.4	10.0	8.2
Total [c]	*86.5*	*90.6*	*99.9*	*105.5*	*126.4*	*127.8*	*147.8*	*171.6*	*183.6*	*202.1*	*181.1*
Grand total Latin America [b c]	*498.1*	*462.1*	*508.1*	*628.7*	*669.0*	*661.1*	*766.9*	*787.4*	*835.2*	*830.2*	*853.2*

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

[a] Provisional data.

[b] Including estimates for Ecuador and Paraguay.

Table 34

LATIN AMERICAN IMPORTS BY PRINCIPAL COMMODITY GROUPS

(Millions of dollars at 1955 prices)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
Consumer goods											
(a) Non-durable	994.5	971.3	1 021.9	1 091.2	1 078.2	1 005.8	1 110.4	1 075.4	1 122.8	1 195.5	1 124.5
(b) Durable	503.4	394.6	403.7	622.1	500.9	392.1	421.4	465.2	485.5	575.7	583.8
Total	*1 497.9*	*1 365.9*	*1 425.6*	*1 713.3*	*1 579.1*	*1 397.9*	*1 531.8*	*1 540.6*	*1 608.3*	*1 771.2*	*1 708.3*
Fuels	498.1	462.1	508.1	628.7	669.0	661.1	766.9	787.4	835.2	830.2	853.2
Raw materials and intermediate products											
(a) Metallics	462.2	424.5	453.2	585.4	480.7	411.4	579.6	552.0	582.0	641.8	648.4
(b) Non-metallics	1 532.6	1 496.1	1 644.4	1 953.3	1 698.3	1 670.7	1 941.0	2 015.9	1 990.8	2 298.5	2 203.9
Total	*1 994.8*	*1 920.6*	*2 097.6*	*2 520.7*	*2 179.0*	*2 082.1*	*2 520.6*	*2 567.9*	*2 572.8*	*2 940.3*	*2 852.3*
Capital goods											
(a) Construction materials	442.3	445.2	390.2	438.5	408.2	376.0	422.8	410.0	386.6	442.2	392.1
(b) Agricultural equipment and machinery	221.8	216.0	291.8	295.2	265.5	248.7	326.0	271.3	262.5	248.2	248.9
(c) Industrial equipment and machinery	1 354.5	1 204.0	1 049.1	1 381.1	1 449.5	1 289.5	1 294.6	1 284.0	1 465.9	1 938.1	1 502.5
(d) Transport equipment and machinery	667.2	484.0	426.8	685.2	681.2	500.5	498.6	533.7	553.3	852.3	695.8
Total	2 685.8	2 349.2	2 157.9	2 800.0	2 804.4	2 414.7	2 542.0	2 499.0	2 668.3	3 480.8	2 839.3
Miscellaneous	137.0	102.1	165.4	156.8	165.3	187.3	214.4	140.3	130.3	168.2	266.7
Grand total Latin America [a]	6 813.6	6 199.9	6 354.6	7 819.5	7 396.8	6 743.1	7 575.7	7 535.2	7 814.9	9 190.7	8 519.8

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2, and Vol. IV, No. 1.

Table 35

EXPORTS OF PRINCIPAL PRODUCTS

Country	1955	1956	1957	1958	1955	1956	1957	1958
	Quantities in thousands of tons				*Values in millions of dollars*			
BANANAS								
Tropical products								
Brazil	210.7	188.1	218.5	271.5	10.3	12.4	13.3	10.9
Colombia	209.6	215.9	191.2	189.0	16.8	28.1	23.1	7.8
Costa Rica	329.4	232.4	310.3	302.4*	33.2	25.7	32.3	26.5
Ecuador	612.6	578.9	677.6	742.2	36.8	36.5	34.6	35.2
Guatemala	134.5	124.8	129.7	112.9	17.1	15.1	14.8	13.1
Honduras	219.7	392.9	337.3	398.2	23.2	43.9	33.7	39.9
Panama	275.1	247.8	289.6	273.2*	26.2	22.3	24.4	22.8
Total	*1 991.6*	*1 980.8*	*2 154.2*	*2 289.4*	*163.6*	*184.0*	*176.2*	*156.2*
SUGAR								
Brazil	573.3	18.7	423.9	758.2	46.9	1.6	45.9	57.3
Cuba	4 601.4	5 327.6	5 297.0	5 064.5*	473.0	524.0	654.0	608.0
Peru	482.9	428.3	496.3	410.7	36.9	32.8	49.6	34.2*
Dominican Republic	574.6	694.0	766.5	668.9	41.9	52.9	88.5	56.6
Total	*6 232.2*	*6 468.6*	*6 983.7*	*6 902.3*	*598.7*	*611.3*	*838.0*	*756.1*
COFFEE								
Brazil	821.7	1 008.3	859.2	773.0	843.9	1 029.8	845.5	687.5
Colombia	352.0	304.1	289.4	326.5	487.4	413.1	391.4	354.5
Costa Rica	28.3	22.8	29.4	46.1*	37.4	33.8	40.6	50.6
Ecuador	23.1	24.5	29.2	30.3	23.1	29.3	29.7	26.2
El Salvador	71.8	64.5	83.2	80.5	91.5	87.4	109.8	84.1
Guatemala	58.4	62.5	61.8	71.4	75.5	91.9	82.3	77.5
Haiti	21.3	27.5	19.4 *	32.8*	24.0	29.7	21.0	29.1
Honduras	8.9	11.9	10.4	11.3	11.1	13.7	11.9	10.9
Mexico	83.5	74.0	88.8	78.7	104.4	105.1	108.8	79.2
Nicaragua	22.8	16.9	22.0	22.9	27.9	23.2	28.5	24.2
Peru	6.8	7.1	11.1	16.5*	8.0	8.9	12.9	15.4*
Dominican Republic	24.4	26.4	21.7	25.8	28.3	32.8	25.1	23.8
Venezuela	30.8	23.4	28.2	35.6	37.0	30.7	34.3	36.0
Total	*1 553.8*	*1 673.9*	*1 553.8*	*1 551.4*	*1 799.5*	*1 929.4*	*1 741.8*	*1 499.0*
CACAO								
Brazil	121.93	125.84	109.68	103.44	90.9	67.2	69.7	89.4
Costa Rica	9.70	6.25	7.35	7.70*	5.9	2.9	3.9	5.9
Ecuador	24.41	29.23	26.75	22.46	18.7	17.4	18.4	20.7
Dominican Republic	22.62	17.51	23.96	24.10	16.8	8.9	13.5	20.6
Venezuela	16.05	18.53	14.98	13.60	10.3	11.2	10.0	11.5
Total	*194.71*	*197.36*	*182.72*	*171.30*	*142 6*	*107.6*	*115.5*	*148.1*
COTTON								
Brazil	175.71	142.93	66.18	40.20	131.4	85.9	44.2	24.8
El Salvador	12.38	27.85	25.16	29.75	9.0	17.5	15.6	17.8*
Guatemala	6.47	7.81	6.68	9.57	4.5	4.9	4.1	5.6
Mexico	352.43	421.89	283.86	341.00	250.5	263.1	172.9	190.2
Nicaragua	43.97	36.34	36.02	42.70	31.0	23.6	21.8	24.9
Paraguay	9.47	10.29	8.94	8.15	5.5	5.6	4.5	3.7
Peru	85.06	109.02	81.81	107.52	68.1	85.7	68.1	75.4
Total	*685.49*	*756.13*	*508.65*	*578.89*	*500.0*	*486.3*	*331.2*	*342.4*
MEAT								
Other agricultural products								
Argentina	260.3	375.8	374.0	381.7	107.4	129.4	125.7	140.8
Mexico	8.5	5.4	7.6	30.1	2.5	1.5	1.9	11.7
Uruguay	12.0	53.1	64.3	32.0	7.2	22.2	27.5	14.6
Total	*280.8*	*434.3*	*445.9*	*443.8*	*117.1*	*153.1*	*155.1*	*167.1*
WHEAT								
Argentina	3 616.7	2 525.6	2 660.0	2 112.7	245.9	154.9	158.9	126.1
Uruguay	411.5	418.8	135.8	265.1	26.0	25.1	7.9	14.9
Total	4 028.2	2 944.4	2 795.8	2 377.8	271.9	180.0	166.8	141.0

(Continued)

Table 35 (*Continued*)

EXPORTS OF PRINCIPAL PRODUCTS

Country	1955	1956	1957	1958	1955	1956	1957	1958
	Quantities in thousands of tons				Values in millions of dollars			
MAIZE								
Argentina	362.4	1 065.2	788.6	1 678.7	23.3	63.3	44.6	81.5
HIDES								
Argentina	143.7	170.0	173.7	180.7	44.3	49.3	41.7	49.5
Brazil	15.0	13.1	14.3	18.9	6.0	5.1	5.2	4.3
Paraguay	6.8	10.0	7.8	9.9	1.4	2.0	1.6	2.0
Uruguay	28.3	34.7	26.3	21.7	14.6	15.5	10.8	8.9
Total	193.8	227.8	222.1	231.2	66.3	71.9	59.3	64.7
QUEBRACHO								
Argentina	120.1	117.3	121.8	105.9	27.2	26.3	24.8	19.0
Paraguay	30.0	36.7	29.5	27.6	5.6	6.5	4.5	3.5
Total	150.1	154.0	151.3	133.5	32.8	32.8	29.3	22.5
WOOL								
Argentina	109.2	109.0	87.8	105.4	124.0	123.8	117.4	99.1
Uruguay	49.4	63.8	27.8	58.8	74.2	88.1	43.4	63.4
Total	158.6	172.8	115.6	164.2	198.2	211.9	160.8	162.5
LINSEED OIL								
Argentina	155.8	61.0	140.7	161.8	29.0	19.0	32.6	38.8
Uruguay	23.6	14.1	25.7	17.7	4.9	3.0	5.8	4.2
Total	179.4	75.1	166.4	179.5	33.9	22.0	38.4	43.0
NITRATE								
Minerals								
Chile	1 322	1 217	1 252	1 127	56.3	48.6	44.3	39.5
IRON ORE								
Brazil	2 564.6	2 744.9	3 526.7	2 823.2	30.0	35.1	47.9	39.3
Chile	1 236.6	1 471.4	3 074.0	3 638.0	6.1	12.5	21.2	24.0
Peru	1 019.3	1 629.7	2 226.8	1 524.0	8.0	14.8	23.4	16.4
Total	4 820.5	5 846.0	8 827.5	7 985.2	44.1	62.4	92.5	79.7
COPPER								
Chile	412.1	452.2	485.1	432.0	314.6	388.0	288.8	231.3
Mexico	56.6	55.6	50.3	48.2	47.8	52.7	33.7	27.4
Peru	41.3	44.0	50.6	53.9	29.3	33.6	24.5	22.1
Total	510.0	551.8	586.0	534.1	391.7	474.3	347.0	280.8
LEAD								
Mexico	182.0	156.3	171.3	150.9	56.4	52.4	51.7	34.5
Peru	107.1	120.9	119.6	136.4	26.2	31.3	29.3	24.4
Total	289.1	277.2	290.9	287.3	82.6	83.7	81.0	58.9
ZINC								
Mexico	218.9	216.1	217.1	181.6	28.3	34.1	38.6	20.1
Peru	146.6	143.9	146.6	136.6	13.8	14.1	15.1	11.3
Total	365.5	360.0	363.7	318.2	42.1	48.2	53.7	31.4
TIN								
Bolivia	28.37	27.44	28.24	18.01	57.3	59.3	57.3*	36.4
PETROLEUM [a]								
Colombia	3 594	3 958	4 030	3 414	61.5	69.9	76.3	66.6
Ecuador	194	116	166	69	1.6	1.0*	1.3	0.6
Mexico	751	831	414	100	8.0	9.5	6.1	1.4
Peru	313	364	434	332	5.0	5.7	7.6	6.1
Venezuela	108 039	123 774	137 538	127 692	1 800.3	1 984.5	2 175.0	2 114.6
Total	112 891	129 043	142 582	131.608	1 876.4	2 070.6	2 266.3	2 189.3

SOURCES AND METHODS: See *Explanatory Notes*, Vol. III, No. 2.

[a] Derivatives are included only for Venezuela.

Table 36

WORLD MARKET PRICES FOR PRINCIPAL LATIN AMERICAN EXPORTS

(Indices: 1955 = 100)

Commodity	Weighting 1955	Years			Quarters					
					1958				1959	
		1956	1957	1958	I	II	III	IV	I	II *
A: *Tropical commodities*										
Bananas	184	104	104	101	100	103	100	100	100	108
Sugar a	405	102	196	108	105	108	109	111	103	105
b	437	107	159	108	110	106	107	108	97	89
Coffee c	1 821	102	100	85	95	88	80	76	69	65
d	1 052	115	99	81	85	84	80	75	71	70
Cocoa	231	70	84	120	117	125	125	112	100	105
Cotton e	337	91	91	87	94	90	82	80	76	76
f	238	87	85	...	...	78	76	...	...	...
g	123	119	120	84	103	84	76	73	68	71
Group total	4 828	103	104	90*	96*	93	88	84*	78*	76*
B. *Other agricultural commodities*										
Meat	185	80	81	92	80	92	102	93	103	102
Wheat	356	107	99	92	93	93	94	91	91	88
Maize	122	111	103	81	82	81	80	81	83	80
Quebracho	53	100	86	85	85	85	85	85	85	84
Wool	320	101	104	80	91	79	76	72	73	86
Linseed oil	55	132	109	108	106	107	112	104	89	96
Group total	1 091	102	97	88	89	88	89	85	86	89
C. *Non-ferrous metals*										
Copper	631	93	62	56	48	52	58	66	68	67
Lead	126	109	92	69	70	69	67	70	67	66
Zinc	60	108	90	73	69	69	70	80	82	84
Tin	93	106	102	99	99	99	98	102	104	106
Group total	910	98	72	63	57	60	64	71	72	72
D: *Non-metallic minerals*										
Nitrate	69	99	96	97	97	97	97	90	88	89
Crude petroleum	3 102	98	106	106	106	106	106	106	103	98
Total excluding petroleum	6 898	102	99	86*	90*	88	85	83*	79*	78*
Total 17 commodities	10 000	101	101	93*	95*	94	92	90*	86*	84*

SOURCES AND METHODS: See *Explanatory Notes*, Vol. IV, No. 1.
a Exports to the United States.
b Excluding exports to the United States.
c Santos.
d Manizales.
e Mexican.
f Brazilian.
g Peruvian.

Table 37

WHOLESALE PRICES IN SELECTED COUNTRIES

(Indices: 1955 = 100)

(a) ANNUAL AVERAGE

Country	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*
Brazil	45	53	59	68	88	100	120	134	150
Colombia	82	89	88	93	99	100	108	135	158
Costa Rica	105	108	98	93	97	100	101	101	101
Chile	18	24	29	36	57	100	164	233	293
Ecuador	...	...	99	102	101	100	99	102	102
Guatemala	94	101	99	99	104	100	100	99	100
Mexico	64	79	82	81	88	100	105	110	115
Nicaragua	55	70	70	77	85	100	80	...	...
Paraguay	13	20	42	69	85	100	134	162	175
Peru	67	79	83	[illegible]	93	100	107	113	122
Dominican Republic	93	103	105	105	99	100	99	108	108
Venezuela	97	101	100	97	98	100	98	97	94

(b) QUARTERLY

	1957				*1958*				*1959*	
	March	*June*	*September*	*December*	*March*	*June*	*September*	*December*	*March*	*June*
Brazil	135	133	133	135	138	144	156	172	191	193[a]
Colombia	123	138	143	147	152	159	162	165	168	174[b]
Costa Rica	103	103	100	99	99	103	103	100	101	102[b]
Chile	209	238	253	251	278	288	313	315	357	...
Ecuador	102	102	103	104	104	102	101	101	102	...
Guatemala	99	101	99	99	98	103	101	101	100	102[b]
Mexico	106	109	111	112	114	115	113	116	116	115[b]
Paraguay	160	162	165	168	171	172	180	181	...	...
Peru	112	114	114	114	118	121	125	129	134	137[a]
Dominican Republic	109	101	109	113	114	112	105	100	101	...
Venezuela	97	98	97	96	95	93	95	92	95[c]	...

SOURCES: Official publications of each country; and United Nations, *Monthly Bulletin of Statistics.*

[a] April.

[b] May.

[c] February.

Table 38

COST OF LIVING FOR TOTAL AND BY GROUPS

(Indices: 1955 = 100)

(a) Total

Annual

Country	1950	1951	1952	1953	1954	1955	1956	1957	1958
Argentina	44	59	83	86	89	100	113	141	186
Bolivia	9	10	12	25	55	100	279	601	618
Brazil	43	47	58	71	83	100	122	145	167
Colombia	81	89	86	93	101	100	106	123	140
Costa Rica	92	98	94	94	97	100	101	104	107
Cuba	...	...	...	103	100	100	100	100	...
Chile	18	22	26	33	57	100	156	208	250
Ecuador	87 [a]	91	92	94	98	100	95	96	98
El Salvador	78	90	89	95	98	100	102	97	102
Guatemala	91	94	92	95	98	100	101	99	101
Haiti	...	...	102	94	98	100	104	106	...
Honduras	80	88	86	88	93	100	96	95	97
Mexico	65	73	84	82	86	100	105	111	123
Nicaragua [b]	...	...	...	...	...	100	93	90	94
Panama	...	...	102	101	100	100	100	100	100
Paraguay	13	18	39	68	81	100	122	141	149
Perú	71	78	84	91	95	100	105	114	123
Dominican Republic	94	102	103	102	100	100	101	106	104
Uruguay	59	68	77	82	92	100	107	122	143
Venezuela	94	100	101	100	100	100	101	98	103

Quarterly

	1957				1958				1959	
	March	June	September	December	March	June	September	December	March	June
Argentina	129	141	151	157	157	182	201	236	325	412
Bolivia	657	563	546	602	605	598	603	696	726	711
Brazil	142	143	150	153	158	164	171	187	213	218 [c]
Colombia	115	123	128	134	136	144	142	143	150	153
Costa Rica	102	103	103	105	105	106	105	107	107	107
Cuba	99	100	101	100	103	103	...	...	...	...
Chile	185	206	247	211	231	247	262	279	316	346
Ecuador	96	96	97	98	99	97	97	97	98	98
El Salvador	106	107	98	100	102	101	105	103	102	102 [c]
Guatemala	98	104	100	99	97	103	100	100	100	103 [c]
Haiti	109	110	107	105	106	...	107	...	...	...
Honduras	96	96	96	92	96	99	98	96	96	98
Mexico	104	110	115	118	122	122	124	127	125	127 [c]
Nicaragua [b]	89	90	91	89	91	98	94	91	91	97
Panama	100	100	100	100	99	100	100	100	100	...
Paraguay	139	141	142	147	154	148	150	153	159	163
Peru	112	113	115	116	120	122	125	126	130	134 [d]
Dominican Republic	106	105	110	107	100	104	102	102	97	103 [d]
Uruguay	114	126	127	133	137	141	148	158	172 [e]	...
Venezuela	97	98	98	103	101	104	105	104	107	107

(Continued)

Table 38 *(Continued)*

COST OF LIVING FOR TOTAL AND BY GROUPS

(Indices: 1955 = 100)

Country	1950	1951	1952	1953	1954	1955	1956	1957	1958
					(b) By groups				
					Food				
Argentina	45	61	88	91	90	100	114	152	209
Bolivia	9	10	13	26	61	100	381	873	903
Brazil	39	40	52	70	84	100	123	138	155
Colombia	81	89	84	92	103	100	108	129	149
Costa Rica	86	94	91	93	96	100	100	101	105
Cuba	94	105	104	102	97	100	99	98	...
Chile	16	20	26	32	59	100	156	220	237
Ecuador	83 a	90	93	92	97	100	91	93	94
El Salvador	82	96	88	92	96	100	101	95	100
Guatemala	89	93	91	94	98	100	102	100	102
Haiti	...	96	104	91	99	100	99	101	...
Honduras	74	85	81	85	96	100	91	87	89
Mexico	63	72	85	81	85	100	107	113	126
Nicaragua b	...	77	78	88	95	100	88	82	...
Panama	...	...	101	99	99	100	99	100	98
Paraguay	13	18	45	83	83	100	127	147	156
Peru	66	74	80	89	95	100	104	112	121
Dominican Republic	94	105	105	103	98	100	102	107	105
Uruguay	52	61	74	80	89	100	109	129	156
Venezuela	95	101	102	97	98	100	101	99	103
					Clothing				
Argentina	37	54	73	78	88	100	109	122	150
Bolivia	6	8	9	20	52	100	208	...	...
Brazil	42	52	58	63	81	100	119	139	...
Colombia	86	90	96	96	98	100	104	118	138
Costa Rica	98	105	104	99	99	100	100	100	100
Cuba	...	...	...	109	103	100	102	102	...
Chile	17	22	24	30	51	100	154	178	230
Ecuador	93 a	93	95	96	98	100	100	101	...
El Salvador	95	107	108	100	94	100	100	81	...
Guatemala	84	91	87	90	94	100	91	90	...
Haiti	...	111	112	109	100	100	99	96	...
Honduras	94	101	96	87	80	100	103	103	...
Mexico	68	74	79	79	89	100	104	107	...
Panama	...	...	106	104	102	100	98	96	96
Paraguay	10	18	42	66	80	100	117	139	146
Peru	76	86	91	94	97	100	104	109	118
Dominican Republic	106	117	112	112	107	100	106	...	...
Uruguay	61	77	84	87	99	100	106	121	144
Venezuela	75	72	76	88	89	100	99	93	...
					Rent				
Argentina	98	98	99	100	100	100	100	101	104
Bolivia	36	39	49	84	100	100	...	...	...
Brazil	52	58	71	77	81	100	121	148	...
Colombia	80	91	93	93	95	100	107	117	129
Costa Rica	79	83	85	91	94	100	107	111	112
Cuba	...	...	...	100	100	100	98	98	...
Chile	34	35	42	52	64	100	178	245	395
Ecuador	92 a	96	98	98	98	100	105	105	...
El Salvador	57	70	90	100	112	100	112	113	...
Guatemala	100	100	100	100	100	100	100	100	...
Haiti	...	72	81	90	92	100	123	132	...
Honduras	86	86	89	93	94	100	105	106	...
Panama	...	...	98	98	99	100	101	102	101
Paraguay	9	12	22	36	78	100	113	129	130
Peru	88	88	93	98	98	100	106	112	118
Dominican Republic	97	97	97	97	100	100	100	100	...
Uruguay	76	77	79	86	100	100	100	100	100
Venezuela	94	113	113	110	109	100	101	99	...

Sources: Official statistics of each country; United Nations, *Monthly Bulletin of Statistics*, and *Yearbook of Labour Statistics*.

Note: In general, indices refer to the capital city in each country, except for Brazil (São Paolo).

a August-December.

b June-December 1955 = 100.

c May.

d April.

e February.

EXPLANATORY NOTES

As the majority of the preceding tables are a continuation of series presented in Volume III, No. 2, and Volume IV, No. 1, the Explanatory Notes appearing in those two issues apply to them also. The additions and modifications introduced in this issue are as follows:

NATIONAL ACCOUNTS

(*Tables 4 to 7*)

These series are essentially a revised version of tables 7 to 10 in Vol. III, No. 2. In addition, this issue includes information on national income by distributive shares (Table 5).

In the preparation of the tables, the following sources were used:

Argentina: *Boletín Estadístico*
Brazil: Data supplied by the *Fundação Getulio Vargas*
Costa Rica: Data supplied by the Department of Economic Studies of the Central Bank
Chile: *Informaciones sobre Ingreso y Producto nacionales,* July 1959, Development Corporation (CORFO)
Ecuador: *Memoria del Gerente General correspondiente al ejercicio de 1957,* Central Bank
Guatemala: Data supplied by the Department of Economic Studies of the Central Bank
Mexico: *Informe anual, Nacional Financiera*
Panama: Data supplied by the Controller's Department
Dominican Republic: Data supplied by the Central Bank
Venezuela: *Problemas de Desarrollo Económico de Venezuela,* speech by the Minister of Finance, Office of the President of the Republic

ENERGY

(*Tables 12 to 18*)

Sources

While numerous figures were supplied directly by Government offices for the countries concerned, figures were, as a rule taken from the following sources:

(a) *General data*

United Nations: Energy in Latin America, Statistical Yearbook and *Monthly Bulletin of Statistics*
McGraw-Hill International Company: Industria
Petroleum Press Service

(b) *Data by countries*

Argentina: *Boletín de Estadística,* Department of Energy
Bolivia: *Boletín Estadístico*
Brazil: *Anuario estadístico do Brasil, Diario Oficial,* April 1959, *Desenvolvimento e Conjuntura,* July 1959, and *Petrobras, Relatorio das actividades de 1958*
Chile: *Memorias anuales de ENAP*
Producción y consumo de energía en Chile—1957, Endesa Revista Esso, No. 111
Colombia: *Boletín de Petróleos,* Ministry of Mines and Petroleum, *Boletín Mensual de Estadística*
Ecuador: *Boletín del Banco Central*
Perú: *Estadística petrolera del Perú, 1957*
Forum sobre energía en el Perú, series of lectures sponsored by the Ministry of Development and Public Works
Uruguay: *Producción de energía eléctrica,* UTE
Informaciones de ANCAP
Venezuela: *Boletín Mensual de Estadística*
Revista del Banco Central de Venezuela

Consumption

Data relate to apparent consumption except when data on actual consumption are published by the countries covered (Argentina, Brazil, Colombia, Peru and Venezuela). For coal, all data except for Argentina refer to apparent consumption of washed coal. It should be noted that data on consumption of vegetable fuels are only rough approximations.

Electricity

Data on installed capacity and production of the public sector are currently available for Brazil, Chile, Mexico and Uruguay. For other countries, data must be considered as provisional estimates based on incomplete information which was taken from various sources.

Conversion into petroleum equivalent

The following conversion rates were used for obtaining tons of crude petroleum equivalent:

Tons of crude petroleum per ton of product

Fuel oil, residual	0.98	Liquid gas: Butane	1.095
Gas and diesel oil	1.02	Liquid gas: Propane	1.115
Kerosene and similar products	1.03	Hard coal	0.67
Motor spirit, natural and standard	1.05	Anthracite	1.06
Aviation spirit	1.06	Coke	0.70
Natural gas (thousand cubic metres)	0.87	Asphalt (Argentina)	0.82
Gas from refining	1.20	Hydro-Electricity (thousands of kWh)	0.42
		Wood (cubic metre)	0.33
		Bagasse (dry)	0.44

INTERNATIONAL TRADE

(Tables 25 to 34)

As indicated in Volume IV, No. 2, the year 1955 has been adopted by ECLA as the case period for its index series and constant value tabulations which relate to recent years. The re-calculation of data on this base has not yet been completed and for this reason figures in constant values are either omitted or appear as estimates for certain countries. In later issues it is hoped to show final figures for the countries concerned, and, at the same time, to publish series in current prices for the commodity groups indicated in Tables 30 to 34.

The description of the commodity groups will be found in the Explanatory Notes to Volume III, No. 2. For the methodology used (including methods of adjustment for incomplete coverage) the reader is referred both to that issue and to the later one (Volume IV, No. 1) in which modifications to the procedures used for earlier series (to a 1950 base) are described.

It is to be noted that the unit value indices shown in Tables 26 and 27 as well as the terms-of-trade series in Table 22 refer to values expressed in dollars. Where the rates of exchange altered during the period covered, the indices will differ from similar ones obtained from values expressed in the national currency. The same remarks apply to Table 1 (items 26 to 28) and Table 2 (item 12).

PRICES

(Tables 37 and 38)

As in previous issues, both wholesale prices and cost-of-living series refer to national data published by the Governments of the countries concerned and by the United Nations Statistical Office. No calculations were made by ECLA except to convert the base year to 1955 in order to conform to the other series published.

Cost-of-living series have been amplified to show the three main groups of food, clothing and rent for which comparable figures for Latin American countries exist.

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